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NOTICES.

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We will be obliged to our friends for an early transmission of the subscription money, as we have no reserve funds with which to meet our printers' bills. SUBSCRIPTIONS should be forwarded to the Rev. G. F. Fitch, Presbyterian Mission Press, Shanghai.

Articles intended for *The China Medical Missionary Journal*, should be sent to the Editor, who solicits contributions from all Medical Practitioners in China, Corea, Japan, Siam, or elsewhere.

The China Medical Missionary Journal.

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DEPARTURES

The China Medical Missionary Journal.

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No. 4.

Original Communications.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editor on the first day of the month preceding that in which they are expected to appear. The editor cannot undertake to return manuscripts which are sent to him. A complimentary edition of a dozen reprints of his article will be furnished each contributor. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

A CASE OF FRAMBOESIA IN SWATOW.

By J. M. DALZIEL, M.B., C.M.

Keng Lim, aged forty-nine, came first to hospital as an in-patient on February 17th, 1900.

He presented at that time a striking appearance, as his forehead and scalp, as well as those parts of his neck and chest which were not covered by the clothing, were conspicuously covered with crusted tubercles. The superficial resemblance of these excrescences to the limpet-shell lesion of rupia, made it easy to content oneself with a provisional diagnosis of the latter condition. On a more careful inspection of the distribution it was found that practically the whole body was affected—head, neck, trunk, and limbs, with the exception of the feet and hands and the perineal region. The patient was a native of a village one day's journey by river from Swatow, and was in the employ of a tradesman of that place. He was in good health; had acquired syphilis at the age of twenty-five and had never been abroad.

History.—The condition was first noticed about five months before admission, as a gradually enlarging tubercle, which had resulted from the union of two smaller ones on the front of the ulnar side of the right wrist. This increased in extent and became covered with a yellow scab, which later dropped off, while the remaining protrusion became dry and fissured. Meanwhile some weeks after the first noticed lesion crops of similar growths appeared on the forehead and shaven part of the scalp; later on the front of the neck, and these were in turn followed by a like eruption all over the general surface of the body and limbs. They gave rise during their growth to considerable itching, but were at no time associated with any other constitutional symptoms, fever, aching, etc., and from their commencement had in no way interfered with the patient's general health. His own account of the etiology was as follows: A child belonging to his master, aged three, had developed the disease in

March, 1899, and had a copious eruption of scabby tubercles on the legs and buttocks, as well as over the body. An older child, aged nine, was accustomed to carrying the younger, and after some time developed the same condition. The patient himself then used to carry the child, and in September found a similar lesion on his wrist, from which his belief is that the contagion was passed to other parts of his body. His master, the father of the children, had been in Singapore for three years, but had returned to his home four years ago, and had not, within the patient's knowledge, ever suffered either from syphilis or from the condition which his children presented. No other persons in the village were known to be similarly affected.

Description.—Upon casual inspection of the lesions one might have decided that there were two conditions present. The more conspicuous were soft excrescences of granulation tissue, closely covered by yellow crusts, which could easily be lifted from the more mature tubercles like a cap, but which adhered somewhat closely to those which had not yet attained their full size. In outline they were round or oval, rose abruptly from a healthy base and attained a hemispherical shape. A very usual size was half an inch in diameter, but some were larger, and there were many of every gradation of smaller sizes. On removing the crust a pale papillated elevation was exposed, which bled easily and exuded a thin serous fluid. The comparison to a raspberry (*Framboise*) might easily suggest itself, though the little pale granulations collected into a more or less compact head might, to some minds, resemble a small piece of cauliflower, if not in colour at least in proportions. A comparison to the Chinese *arbutus* (*myrica*), suggested by the native assistants, is perhaps more apt than any other. The moist surface exposed by removing the yellow crust, though not insensitive, was not very susceptible to the action of acids and other irritating fluids.

The other form which at first caught the eye as a different lesion was flat and almost warty in appearance, of sizes corresponding to the former and of a dull brownish purple colour. It was easy, however, on almost any part of the body to trace patches showing every stage between this and the typical fungoid tubercle. They were obviously the resolving stage of the granuloma, which from being soft, moist, and vascular, became after losing the crust, gradually dried up and flattened to the level of the normal skin. At the time of admission most of the tubercles on the forehead and shaven scalp (where the eruption had earliest established itself) had already merged into this type, though a few of the more recent crusted tubercles mingled with them. Here and on other parts of the body also one could find patches in a still later stage of resolution, presenting merely a dusky oval spot, not at all elevated above the surrounding skin, but rather irregular and "seedy" on the surface. It was interesting to trace an area on the back, where three patches in line showed types of the different stages: one from which the crust had recently fallen, was just becoming dry and flat with the papillary granulations

still distinct; the next still slightly raised above the surface and of a dry warty appearance, which looked as if it could be smoothed off by sandpaper; and the third merely a seedy roughened plaque of dusky purple colour. In some places also could be seen the final appearance before complete resolution, viz., a dark macule or merely a little cluster of dark purple points, from which the colour could not be entirely removed by pressure. At no point could any scar resulting from the lesions be detected. With the exception of one or two small glands in the axillæ, lymphatic enlargement was unimportant.

But the largest and most interesting lesion was that on the wrist, which was said to have been the earliest to appear and to have preceded the general eruption by some weeks. At the time of admission this presented a rough warty surface of a dirty white appearance, cut and fissured in every direction, and which, from having been moist, was apparently now in the process of becoming dry and horny. It was raised above the surface of the skin scarcely more than a quarter of an inch, and occupied an area of two inches in length by nearly as much in breadth. The attempt to pick off a broken piece was resented as painful. According to the patient it had commenced as a crusted excrescence, in no way differing from those of the later eruption, and its present appearance corresponded somewhat with the condition described as *verruca necrogenica*.

Distribution.—The eruption was symmetrical and widespread. Large and small tubercles were abundant on all aspects of the trunk, and even in the axillæ; the four limbs shared equally, and the lesions were as numerous on the extensor as on the flexor surfaces and on the upper as on the lower segments of each limb. The anterior part of the scalp was rather closely covered with the lesions, but here they were mostly in their more advanced stage, and the face at the date of admission was free, except for patches of irregular surface where resolution of former tubercles had already occurred. Both surfaces of the hands and feet were free, and no tubercles were found on the genitals and perineum.

Progress.—The patient remained in hospital for twenty days and received mild antisyphilitic treatment. During this time, whether as the result of treatment or through a natural tendency to cure, the condition appeared to improve very rapidly. The effect of treatment would on the whole seem to be that the involution of those tubercles which had already passed maturity was hastened, while the younger lesions were at the same time stimulated to a more rapid development and pursued throughout treatment a briefer course. After being at home for a few weeks he returned to hospital in the end of March. The former lesions had either disappeared, or were in the course of involution above described. The forehead and scalp were free and showed only a general unevenness of surface and a mottled dusky colour. But elsewhere the old generation had merely given place to a new and healthy crop, and two or three new tubercles had appeared on the left eyelid. Being

encouraged by his improvement in hospital he remained only a few days, and then returned home, intending to bring back with him for treatment his master's two children. On April 16th he returned (unfortunately without the children). The improvement continued, but new lesions continued to appear. In addition to those on the eyelid there were now a few on the upper lip, about the alæ of the nose and on the chin, while either ear showed a single tubercle on exactly corresponding points. The general improvement and involution of existing lesions, however, continued, and the new growths were both less numerous and smaller. The verrucose mass on the wrist gradually disappeared, becoming less elevated and more divided into discrete warty tags. By the middle of April most of these had shrunk or been rubbed away, and a rough surface free from scarring was resulting.

Diagnosis.—The diagnosis of a rare condition must necessarily be made with reserve by those to whom the appearances are unfamiliar. What is absolutely characteristic to one who is acquainted with a certain disease may be only puzzling to one to whom the condition is new. In a crowded outpatient clinique of eager Chinese a hasty and unconsidered diagnosis of syphilis in an obscure case will perhaps be excused by other readers of the JOURNAL. The usual scape-goat in such circumstances is syphilis, and it must be admitted that the result of treatment in accordance with such a suspicion often justifies the diagnosis. In the case before us which presented in a patient who had acquired syphilis in former years and had developed a symmetrical and peculiar eruption which appeared to yield to potassium iodide and mercurials, the diagnosis may, on paper, seem temptingly easy. One looks in vain, however, for the combination of general characters, which usually afford cumulative evidence in distinguishing the eruptions of secondary syphilis from those of different origin which resemble them. The polymorphism, the changing character of various lesions present at one time, the common tendency to arrangement in irregular or circinate groups and lines, the absence of itching, those characteristics in fact which are most distinctive, are conspicuously absent. True the symmetrical distribution, and to some extent the position of the lesions, affecting amongst other parts the anterior part of the scalp, the neck, abdomen, etc., suggested at first sight the more familiar condition which the therapeutic test seemed to confirm. A brief inspection, however, showed that the involvement of those parts mentioned as particularly favoured by syphilis in the symmetrical stage was, in the present case, only part of a generalized eruption, in which it would be easier to name those few parts which were not represented than the extensive and dissimilar regions which were. But if syphilis what form of it? Was it tertiary, or was it a relapsing manifestation of secondary syphilis at a very late period? With the utmost leniency one could only admit two conditions for diagnosis by exclusion: 1. Rupia. 2. Tubercular syphilide.

1. The resemblance to rupia was only superficial. There was no cachexia, no bulla, no pus; the crust closely covered a convex tubercle, not a punched out ulcer, and no scar resulted.

2. The individual lesions bore no resemblance to any described form of tubercular syphilide and showed the phenomena of new formation without inflammation. Without the crusts they looked like pieces of granulation tissue placed on the healthy skin with complete absence of painful and inflammatory induration around the margin. The crust was a cap completely covering the entire lesion, while a tubercular syphilide, when ulcerated, has an adherent crust set within the skin on a red infiltrated base. The latter, even if involving extensive tracts, is not symmetrical, and would certainly leave traces in the form of characteristic scars.

In the present case the written description of yaws was before our minds, but any knowledge of the latter disease, even in "dangerous" amount, was wanting to encourage the suspicion, and the case was discreetly recorded as rupia. Before the patient left the hospital, however, on his first return home (*i.e.*, within three weeks of admission) we were fortunate in securing the opinion of Dr. Sims, of the Congo Baptist Mission, to whom yaws is familiar in its native habitat, west equatorial Africa. He had no hesitation in pronouncing the crusted tubercles as typical yaws. The dry mulberry patches, however, were new to him, and until the successive stages of their resolution from the early fungoid tubercles were demonstrated they might have been dismissed as probably belonging to a quite independent condition. Their identity, however, could be abundantly proved at almost any part of the surface and fortified by the expert opinion of the observer mentioned above; we felt some satisfaction in recording the case as truly one of framboesia. The latter disease, like syphilis, is inoculable and symmetrical, and in the experience of some yields to mercury and potassium iodide. The pronounced itching, with absence of induration and scarring, strongly support the diagnosis founded upon the characteristic raspberry nodules. Whether the early yaw on the wrist which assumed such large proportions may be considered the mother yaw (or *maman pian*) may be decided differently by those who are familiar with the disease.

Treatment.—The treatment adopted was mildly antisypilitic small doses of biniodide of mercury, with 12-15 grs. of potassium iodide daily, and yellow oxide of mercury ointment locally. This was continued during the few weeks he was under observation, and improvement was uninterrupted. New yaws, however, in smaller size and numbers still continued, and up to the present do continue to appear, so that cure is still incomplete. Where there are few yaws probably chronic or carbolic acid would give rapid results, and copper sulphate naturally commends itself. In the later stages tonics with arsenic and the iodides are indicated.

Remarks.—Although cases of framboesia appear to be very rarely described in China the Chinese are by no means insusceptible to the disease. It is endemic in the Dutch Indies and probably in Borneo, and Chinese immigrants may acquire the disease from the indigenous races. It is found amongst Malays, but whether in the Malay peninsula itself, or only amongst coolies in the countries where the disease is prevalent, I have so far been unable to ascertain. In a Chinese coolie returning to Swatow the disease might be traced to infection in the Malay archipelago, or in the Straits, if the disease occurs there. Our patient had never been abroad, and no history either of yaws or syphilis could be ascertained with regard to his master, or his associates in business, or his neighbours. The source of the disease in the child from whom he was apparently infected cannot therefore be ascertained. It may be remarked, however, that cases resembling the present one have from time to time presented themselves in the Swatow hospital, but have passed as some of the protean forms of syphilis. In the Hospital Report for 1880 there are four cases recorded as yaws. Occasionally children are brought with the nates and thighs covered with papillated crusted tubercles, but they have been registered as condylomata, although occupying other parts than the junction of skin and mucous membrane. Speaking from memory only, one cannot define the relation of these, if any, to yaws. A point of particular interest in the present case is the aspect taken on by the older tubercles after the crust has fallen off, as already described. In this connection I may be allowed to quote from an observer on yaws in Assam*—"some of the older and drier patches may present a seedy or almost warty appearance; the papillae separated by crevices. This form is not common." These words very aptly describe the appearance assumed, but in this case apparently *all* the yaws which arrived at maturity underwent this change; the granulations drying up and leaving the hypertrophied papillae of the true skin as a warty patch, which regains more slowly the level of the surrounding surface. Another point of interest in the case is the distribution which, although almost universal, yet when compared with most descriptions of yaws presents some slight peculiarities. Favourite parts, as the anus and pudenda, were not affected; at least during the time the patient was under observation. The face was, on the whole, less affected than other parts, while the scalp, which is said to be rarely attacked, was early covered with tubercles, which were also the first to disappear. The description of the above case, following on one of probably the same nature, recorded from Soochow by Dr. Polk in the July number of the JOURNAL, will, I hope, serve to elicit the experience of others with regard to a disease whose geographical distribution has not hitherto been admitted in China.

English Presbyterian Mission, Swatow.

* *Powell.*—"Yaws in India." *Brit. Journ. of Dermatol.*, December, 1896.

SOME CASES OF ECLAMPSIA.

By Miss E. M. Gough, M.D.

In writing this paper I do not pretend to be able to throw any light upon the obscurity of the causation of this alarming condition, or, indeed, to do anything beyond bringing together a few cases which have come under my own observation, in order that they may teach their own lessons. The comparative rareness of the affection in general practice makes such cases of considerable interest to every obstetrician.

CASE I.—Mrs. H., aged 35. Primipara. Patient was a very plethoric looking woman; had slight oedema of both legs. Heart nil. She had passed through a perfectly normal pregnancy up to the eighth month, when her husband died. Labour came on the day after the funeral.

Things progressed satisfactorily till the os was about the size of a five-shilling piece; the first stage having been rather protracted owing to rigidity of the os. Then, quite suddenly, without any premonitory symptoms the patient had an eclamptic attack; the convulsions, which were very violent, affecting *both* sides.

Chloral hydrate, gr. xxx., with potassium bromide, gr. xx., was given by the rectum, and chloroform inhalation begun at once. Fits followed one another in quick succession, and after an interval of half an hour the dose of chloral was repeated; the os was further dilated with the fingers, forceps applied, and delivery of the child, which was *dead*, accomplished as speedily as possible. The placenta was forcibly expelled very soon after; convulsions still continuing.

After another half hour's interval chloral, gr. xxx., was again given; the chloroform inhalation being continued until the patient was washed and put straight. No douche was given and as little interference as possible allowed.

So far as I remember the child was born about 6 a.m. During the day the chloral was repeated twice, and patient had two slight convulsions, during which chloroform was administered. During the night the breathing was stertorous and the patient very drowsy, but no further convulsions occurred, though the pupils remained contracted and there was slight twitching of the muscles of the face at times. About 5 a.m. the patient awoke, quite conscious, and owing to her great discomfort and inability to pass urine naturally the catheter had to be passed. No further trouble occurred. The urine contained some albumen, which, under suitable dietary, soon cleared up. In other respects the patient went through a perfectly uneventful puerperal period.

II.—Alice G., aged 18, single. Primipara. Admitted to hospital in January, 1898, about 10 p.m., from a rescue home, having had suppression of urine for twenty-four hours, suffering from severe frontal headache, constipated, and

complaining of seeing dots before her eyes. The matron of the home reported her as being very dull and stupid.

Patient was seven and a half months pregnant. Compound jalap powder, gr. xxx., followed by an enema of soap and water, was given at once, and patient kept for twenty minutes in a hot bath. No labour pains had been felt, so no vaginal examination was made; it being judged wiser to let her alone as far as possible. About midnight the left side of her face was observed to be twitching a good deal, and there was some clenching of both hands; the thumbs being turned in over the palms. Pupils were contracted, equal, and patient seemed to be unconscious. The whole thing was over in a few seconds and was not repeated. Chloral, gr. xxx., and potassium bromide, gr. xx., were given once; patient was put on copious drinks of hot water and the bowels were kept freely open with jalap. Next morning patient passed about oz. v. of urine and seemed much brighter. About midday I was called hurriedly by the nurse in charge, who said that without any pain having been observed the head was presenting at the vulva. I went and found, not the child's head, but a large, bulging bag of membranes, which ruptured just as I got in, being quickly followed by the head. Patient had an uneventful convalescence; there was still a trace of albumen in the urine when she went back to the home, one month after admission. She had no œdema. The urine, when first tested, was loaded with albumen and contained blood and granular casts.

III.—Mary O., aged 39, single. Primipara. Admitted to hospital in December, 1897, at beginning of labour; pregnancy having gone on to full term. The first stage was progressing satisfactorily when, without any warning, while having her dinner, patient was seized with an attack of eclampsia. Her head was drawn over to the left, eyes fixed, pupils contracted. Her tongue was rather badly bitten, and she nearly got choked with some false teeth which were jerked out of place. The convulsions following the tonic stage affected chiefly the left side, though both sides were involved. This first attack lasted two minutes. Chloral, gr. xxx., and potassium bromide, gr. xx., were given by the rectum together with inhalation of chloroform. On examination the os uteri was found to be only about the size of half a crown and felt very rigid.

After the convulsion ceased patient still remained very rigid, breathing heavily, so after half an hour chloral, gr. xxx., was again given by the rectum. Two more slighter attacks occurred, but patient's general condition seemed so good that it was thought better not to try to artificially dilate the os and deliver at once.

Another interval of half an hour, and the dose, gr. xxx., of chloral was repeated. Several strong pains having occurred another vaginal examination was made and the os found to be rather more than the size of a five-shilling piece, very soft and dilatable so that on occurrence of another convulsion

forceps were applied and the child, which was living, delivered. After the birth of the child several more convulsions occurred in quick succession; patient being in the interval perfectly rigid, and chloral, gr. xxx., was again given, one hour after the last dose. Chloroform inhalation was still kept up, and the placenta, which could not be easily expressed, was manually removed.

One hour afterwards, patient still continuing very rigid, the dose of chloral was again repeated; patient having in six hours had 150 grains. Two hours afterwards she was seen to be sleeping heavily, breathing stertorous, pupils still rather contracted, muscles somewhat less rigid, though not completely relaxed. Two hours later she was able to take compound jalap powder, gr. xxx., by the mouth (10 p.m.) and a little milk with potassium bromide, gr. xx., chloral, gr. xx., by rectum. Pulse was fairly good, lips rather blue.

During the next day patient was very drowsy, complaining occasionally of headache and rousing to take her food. No further convulsions occurred, though every now and then the face twitched slightly. Chloral, gr. x., and potassium bromide, gr. x., were given three times during the day. The bowels were freely opened.

During the third week patient developed phlegmasia alba dolens. Throughout the case the urine was watched, and never was any albumen found, or anything by the microscope to indicate disease of the kidneys. No history of epilepsy could be obtained.

IV.—Mrs Li, aged 18. Primipara. Patient had been having fits for five days continuously when I was called in. On arrival she was found to be almost pulseless, pupils contracted, muscles quite rigid, face very blue, breathing stertorous. Chloroform inhalation was begun at once, but the patient had a severe convulsion and died while I was preparing chloral, etc.

V.—Mrs. Lo, aged 24. Primipara. Seventh month of pregnancy. When called in, patient had been having continuous convulsions for two and a half days, and on arrival was found to be very rigid, face twitching slightly, breathing stertorous, pulse quick and very small.

Per vaginam the os was found to be about the size of a four-shilling piece, vertex presenting. Chloroform was given at once, together with chloral, gr. xxx., by the rectum; the dose being repeated after half an hour.

Even then with continuous inhalation of chloroform no relaxation of rigidity had occurred. Patient had another severe attack, and I decided to try to dilate. This I did with my fingers; applied forceps and delivered a dead child. The placenta was expelled soon after, accompanied by slight hemorrhage. Chloral, gr. xxx., was again given and a nurse left to continue the chloroform when the fits recurred. Patient died in a convulsion five hours afterwards.

Despite two more doses of chloral, and almost continuous administration of chloroform, the muscular rigidity never relaxed in the slightest degree.

VI.—Mrs. Tsang, aged 23. Primipara. Called at midnight; labour was said to have commenced two days before. Patient was described by her relatives as having been very “stupid” for the last two days. I found her comatose, pupils contracted, breathing stertorous, knees and elbows rigid, face pale, slightly bluish, blood coming from the mouth. In order to inject chloral, or give chloroform, it was necessary to move her a little. The movement roused her, and she promptly developed an attack of acute mania; her eyes became starting, pupils widely dilated, and she fought with all her might, requiring two men and several old women to hold her on the bed until we could get her under chloroform. On vaginal examination the os was found almost completely dilated; only the anterior lip remaining. During the examination patient had a typical eclamptic attack. The presentation was vertex, and delivery of a fairly developed living child was easily accomplished with forceps. A second, footling, dead, and macerated, speedily following delivery of the first. The placenta was expressed.

In this case there was no oedema of the vulva or other parts, and the urine drawn off was quite clear. I regret that I did not take a specimen home. I could get no history of previous fits or of insanity in the family. Patient had only sixty grains of chloral at the time, and was treated afterwards with jalap and a mixture containing bromide and chloral.

VII.—Mrs. Lo, aged 21. Primipara. When I was called in the patient had been having fits for one day and was quite comatose with a very bad pulse. She had had hip disease, and the left hip-joint was fixed; there being several old scars around the joint. There was considerable lordosis. After giving chloroform and thirty grains of chloral I examined vaginally and found the promontory of the sacrum projecting down very low; the head, which felt hard, being high up above it. By rough measurements with my fingers I judged the internal conjugate at $2\frac{1}{2}$ - $2\frac{3}{4}$ inches. The head was not fixed. I first put on forceps; locking them with difficulty. I think now that this was foolish, but the foetal heart-sounds were so good that it was a temptation just to try, though I might have known it would be of no use.

There was not the slightest advance of the head after strong traction, so I perforated and put on the cranio clast, delivering by means of it. During delivery patient had two convulsions. I therefore gave chloral, gr. xxx., before removing the placenta, which I did manually, as I wished to ascertain the condition of the uterus.

Before leaving I repeated the dose of chloral and left a nurse, with another thirty grains and chloroform for inhalation, to watch. During the night she had two more slight attacks. In the morning was put on a mix-

ture of bromide, gr. x., and chloral, gr. x., three times a day. By evening she was reported better, and the next day (3rd) was better still, having had no further attacks and being quite conscious. On the afternoon of the third day she got angry about something; got up, walked to the door, and dropped down dead, presumably from embolism. In this case there was no œdema anywhere. I did not examine the urine.

The above cases serve, I think, to show the extreme importance of early treatment of these cases. In all I have seen eight cases, and of these none have died when treated at once by the Vienna method of giving large doses of chloral combined with chloroform inhalation. I used to dread eclampsia more than any other accident of child birth, but my very limited experience has led me to fear it very little in cases which can be treated from the first onset. I do not think this is merely the assurance of the young practitioner who will go gaily "where angels fear to tread," because I know it to be the experience of others whose practice is large and who have seen many cases.

Wesleyan Mission, Hankow.



SOME REMARKS ON OPHTHALMIC PRACTICE IN HANKOW.*

By SYDNEY R. HODGE, M.R.S.G., L.R.C.P.

My remarks to-day will refer only to general diseases of the eye and will not touch upon the question of refraction and its treatment. A man cannot do everything, and as there are so many things he must do I have felt it wise, for myself, to keep absolutely aloof from certain specialities and refraction work is one of these.

Speaking from a professional point of view I have found eye work disappointing out here.

This has been due partly to the kind of cases that mostly come to us and partly to the fact that, frequently, one gets no chance of properly treating the rarer cases that one does see.

BLEPHARITIS is not so common as one would expect, considering the large amount of tubercular disease that one meets with. Meibonian cyst inflammation I have only occasionally seen. Chronic inflammation of the nasal duct, with formation of lachrymal abscess, is fairly common, but the results of treatment are not encouraging. One or two visits is the most that you generally get, and what can be done in that time for so chronic an affection? One or two will come into hospital, and you may try the usual remedies; but they generally lose patience, if you do not. An ophthalmic friend at home eulogized

* Read at a meeting of the Hankow Medical Missionary Association.

lead styles to me, and some one once wrote to our JOURNAL in enthusiastic terms of silver ones. The former I have not tried, and I should not feel I was free from moral culpability if I supplied endless silver styles for impecunious patients. I once saw a case of doubtful epithelioma of the eyelid in a soldier, but it was too soft to be more than in a transition stage, and rodent ulcer I do not think I have ever seen in China. Perhaps I may be allowed to say here that a good deal of interesting work might be done on carcinoma in China, and I hope that some one will some day give us a paper on it. Speaking for myself, if I exclude cases of the male and female generative organs and the female breast, I have seen very little carcinoma indeed in China, which to my mind is a wonderful thing, considering the age to which many of them live and the unhealthy and filthy condition of their surroundings.

I have had one case in my own practice of a peculiar affection of the CONJUNCTIVA, of which both Dr. Davenport and Dr. Gillison have had examples. In my case the lower tarsal cartilages were quite hard, and felt like plates let into the skin; the ocular and palpebral conjunctiva of both eyes was succulent looking, not unlike the translucent appearance of unhealthy tubercular material. It was heaped up over the cornea and interfered to some extent with vision. I was of opinion that it was a case of gumma, and Dr. Milles, of Shanghai, to whom I reported the symptoms and appearance, thought it a not unlikely diagnosis. I excised a piece of the material and sent it to him, and the microscopic appearance was not inconsistent with such an idea. Whatever it was treatment, made little impression upon it. A long course of mercury and potassium iodide and the rubbing of potassium iodide ointment into the lower lid made some impression upon the thickening of the cartilages, which I thought decreased considerably, but nothing I could do made any difference in the conjunctival swelling, although I had the man in my hospital. I remember Dr. Thomson telling me of two somewhat similar cases he had. One was certainly gummatous, and disappeared under suitable treatment; the other did not, and he excised it. I believe it returned. I know he thought it was malignant. I have no reason to think that my case was so.

OPHTHALMIA in all its forms is very prevalent, and amongst young children especially works great havoc. The extreme carelessness of the Chinese in sanitary matters, and the custom of using a common face towel at feasts and on other occasions, spreads it amongst adults. It is difficult to impress upon them the seriousness of ophthalmia neonatorum, and they generally bring their children after perforation of the cornea has taken place. Trachoma, with its secondary results of pannus, keratitis, and entropion, is very common, and forms a large proportion of our cases. I never take a case of trachoma in for less than six weeks, and I never attempt to treat them as out patients. Any of the forms of treatment, if persevered in daily, under your own eye, for six weeks, will give fairly satisfactory results, though I have only known one or

two cases of cure. Those were achieved by a daily application of lapis divinus for six weeks, and despite all that is said for other methods I have a fondness for this old-fashioned remedy.

ULCERS OF THE CORNEA are met with most frequently in tubercular children as phlyctenules, and heal readily under the ordinary yellow oxide of mercury with, occasionally, a little atropine added. Bad cases of hypopyon, complicated with ulcer of the cornea, generally come when they are on the point of rupture, and I have found Saemich's operation very prompt and satisfactory, ; the fact that it leaves an ugly scar across the cornea is of small moment to these patients, compared with saving their sight. It has been a matter of surprise to me that I have not seen a good number of cases of the serpiginous or chisel-shaped ulcer of old people. But although one would expect, from a *priori* considerations, to meet with such out here the fact remains that my own experience is that they are rare.

Another uncommon affection, and one too the rarity of which we shall find some difficulty in explaining, is INTERSTITIAL KERATITIS. I have seen but few cases of this affection. When one remembers how very general syphilis is amongst the population one marvels at the few cases of this eye affection that one sees, but this is not the only symptom of congenital syphilis that one misses out here. Other forms of keratitis, mostly secondary, are very common, and one is not unfrequently called upon to perform iridectomy to improve the vision of these patients. Let me here give a warning against attempting such an operation in a class of cases not uncommon. A man comes to you with a shallow anterior chamber and a cornea largely clouded by old keratitis. He begs you to do something to make him see. Anxious to do your best for the poor fellow you carefully examine to find some spot where the cornea is fairly transparent in hope that an iridectomy will do good. You had best leave the case alone. You will frequently find that the iris is quite rotten and tears away both with forceps and with Tyrrell's hook, and further, that it is adherent all round to the anterior surface of the lens. An attack of iritis will not improbably leave the patient worse off than when you took him in hand. It is a good rule, in all cases where one has any doubt as to the dilatibility of the iris, to decline an opinion until the action of atropine has been tried. This will lose one many impatient cases, but will save one from many failures.

The few cases of ACUTE IRITIS that I have seen have been mostly syphilitic. Judging from the great prevalence of iritic adhesions it must be a common occurrence, but probably the patients do not come to us. A Chinaman will stand a good deal of pain and discomfort in his eye so long as he can see to do his work with the other.

I have seen one case of IRIDO-CYCLITIS in a native, which I had the opportunity of watching for some time. There was ciliary congestion in both eyes,

and the corneæ were steamy, and there was punctate keratitis. The right eye improved much under treatment, and then I lost sight of him for a year. When I saw him again there was lachrymation, photophobia, and inflammation of the skin around the left eye, which was the one that did not improve before. When these symptoms had gone down under treatment there were found a deepened anterior chamber, a widely dilated pupil, the papillary area filled with solid yellowish material, deep in the eye, and not unlike old pus, an anesthetic cornea and some marked ptosis. The perception of light was of course *nil*. Dr. Milles was of opinion that the case had probably commenced with some form of irido-cyclitis, leading to deposit of cicatricial tissue in the ciliary body, with advanced degenerative changes and possibly shrinkage of the vitreous and detachment of the retina. It was, of course, impossible to get any view of the fundus. The one or two cases of traumatism of the eyeball that I have seen have illustrated the general rule that a Chinaman suffers very little from inflammatory reaction after severe injuries. Even a perforating wound of the ciliary region has not seemed to do anything more than produce traumatic cataract, and I have never seen a case of sympathetic ophthalmia, although I have had more than one operative case go wrong that, in a European, would almost certainly have developed that affection.

CATARACT is a common affection, and yet one gets but few cases. This is partly accounted for by the fact that the Chinese have not yet realized that we can cure them, and the few that realize either come to you before the cataract is ripe, or wait until cretaceous changes have taken place in the lens. I am inclined, for the future, to operate on all cases that come, whether ripe or not, providing there is no other contra-indication. I found when I was home that some very good ophthalmic surgeons adopt this rule, and as one remarked to me, you can extract a pig's eye for practice without any cataract in it and why not a human eye. This practice has for some time been in vogue for cases of high myopia, and several cases were related in the discussion last year on this subject at the Ophthalmological Society on the Operative Treatment of High Myopia. I feel that we ought to look at this matter. If in England, where a man has at least the workhouse to go to, the loss of sight and employment to the poor, involved in making them wait for the ripening of a cataract, a process that sometimes takes years, has long been a trouble to surgeons much more is it serious out here where loss of sight means often beggary and worse to the patient. Of course in advocating the extraction of unripe cataracts I do not refer to cases where there is still useful vision in one eye, but where vision is bad in both and yet the process is not complete. A discussion on this subject took place at the Ophthalmological Society of Great Britain in 1890, and will be found in Vol. 10 of the transactions. It is well worth reading. At that discussion both Mr. Critchett and Mr. Tweedy advocated this course. Mr. Tweedy laid great stress on the method of extraction; he said

"he opened the lens capsule at its extreme upper periphery after performing iridectomy. This procedure left the face of the anterior capsule untouched ; and any lens matter that remained behind, or which formed subsequently, was enclosed in its proper situation, and did not come into contact with the iris". When such a treatment of cataract is adopted a secondary needling is required in a considerable proportion of the cases. Still I think that we shall probably do better for our Chinese patients if we thus treat our cataracts. I think the same course, extraction of the lens, should be practised after needling for lamellar cataract. Most of these cases that come to us are in young adults, in whom there is great risk of rapid swelling of the lens bringing on glaucomatous symptoms. This happened to me not long ago ; of course the condition was speedily relieved by tapping the anterior chamber with a grooved needle and letting out as much as possible of the lens substance, but as these cases take a long time for the lens matter to absorb (and frequently it does not do so entirely) I think it would be better to extract, for we cannot keep our patients long enough under observation to ensure a good result. I have not seen many cases of glaucoma. One of acute fulminating and one of chronic complete the list, but I believe it is much more common than this scanty record of over twelve years work would indicate.

EXCISION OF THE EYEBALL I have performed twice, but am not keen on it in a country where foreigners are charged with gouging out eyes. One of these cases was for a cyst involving the eyeball, the other was for epithelioma ; there was a large fungating growth involving both eyelids and filling the orbit. After removal of the eye and thorough cleaning out of the orbit it was found that the eyeball, though imbedded in the growth, had not as yet, as far as naked eye observation could tell, been involved, probably microscopical sections would have told a different tale.

In closing this brief sketch I should like to speak of our opportunities of examination of the fundus. A good ophthalmoscope and routine examination of every case that comes into the hospital, with Gower's Medical Ophthalmoscopy and a good Atlas of the Fundus, will make any man a good observer in time. I have seen many good cases, including : optic neuritis, post neuritic atrophy, syphilitic choroiditis, separation of the retina, opaque nerve fibres, and many other interesting conditions. As a great deal has been written on malarial fundus changes we have a wide field for confirming them or otherwise. I have seen one case of quinine amaurosis, but, now we have learnt a more intelligible way of giving quinine, I hope never to see another.

SYDNEY R. HODGE.

Wesleyan Mission, Hankow.

OUR DAILY ROUND.

By E. RUEL JELLISON, M.D.

CASE I. Two young men were amusing themselves, according to the custom of the country in this city, by a very peculiar method. The Westerner may not see the amusement in this form of play, but it may be only from his inability to appreciate things Chinese. To test their endurance they seized each other by the scrotum, each applying all available force, and he who first cried "Hold! Enough!" would be the vanquished. The young man who presented his mutilated anatomy at the dispensary the next morning was evidently much the worse for the contest as his scrotum and penis were one swollen black mass. There was no mortification, but as the past week has shown by its developments an enormous extravasation of blood had occurred, stretching the scrotum and skin of penis to their utmost. The discoloration extended down to the nates, and was six inches wide in the perineum and laterally. A slight mottling was visible just below the umbilicus. I think some of the vessels of the cords must have been ruptured, or no such extensive swelling and discoloration could occur. The patient has little pain, and urinates easily. The swelling is subsiding and the color becoming more natural. The parts may slough and a separated testicle be found in the scrotum. This is a common amusement among Chinese. The eunuchs at Peking are executed by seizing the testicles firmly, and death occurs very quickly. My informant says that only the penis is removed in the boys to make eunuchs. I have seen the self-made article in Nanking among the Buddhist priests. The scrotum and contents remaining, but no penis.

CASE II. A child is presented with a swollen face and an offensive discharge from the mouth. Examination shows the superior maxillary process on the left discolored and loose. I applied a tooth forceps to one of the teeth and removed a large piece of bone carrying four teeth. There was very little bleeding, as the fragment was nearly ready to fall out by its own weight. A mouth wash for a few days completed the cure.

CASE III. A man was brought to the hospital in a very serious condition. He was emaciated, sallow, unable to move about without assistance. He had fallen on a sharp-pointed stump in the woods and received a penetrating wound in the perineum, completely severing the urethra and establishing a urinary fistula, through which all the urine passed. The fistulous opening was to the left of the median raphe. Under ether an incision was made down to the point of a sound in the urethra, which was entirely obliterated by the injury. The smallest instrument could not be passed by the stricture.

Healthy urethra was found and held up on threads. A sharp-pointed scalpel was thrust toward the neck of the bladder in the probable direction of the urethral remains. A small catheter was passed through this incision to the bladder, and with a probe-pointed knife the incision was enlarged to the size of a No. 13 sound. Recovery was very slow, but six months later the patient showed himself in perfect health. The only after treatment was passing a sound daily and tonics. I had a No. 11 sound made of brass, which the patient took with him and has faithfully used it daily.

CASE IV.—This patient, a captain on a river steamer, had sprue for two years, and after trying, as he said, the majority of the doctors he knew, he asked me for a prescription. His food was undigested, and he was having motions very frequently. He was granted a three months leave, and I met him at Hongkong. I gave him the following:—

R Santonin	...	...	...	...	gr. xl.
Bismuth	...	...	...	...	„ lxxx.
Dovers Powder	...	...	...	...	„ xl.
Make 40 powders. Sig: Take three powders daily.					

He went for a sea voyage, and the report was given me by a colleague that he was cured. This is not an isolated case, as I have two others quite as bad. I ordered as diet only white bread and meat.

CASE V.—A lady who has had sprue for six months. As many as fifteen motions a day. Completely cured by the same prescription. Diet: bread and meat.

CASE VI.—A lady with relapse after being benefited by a trip to Australia. The same prescription was taken until forty grains of santonin were taken in doses of three grains a day. The only symptom from the santonin was causing white objects to look an apple green color. I heard some years ago that Dr. Begg, who was in Hankow many years, used the yellow portions of santonin for sprue. Since treating these cases I have used santonin in many cases of diarrhœa with pain and have had the best results with it.

CASE VII.—A man came to the dispensary with continuous hemoptysis. His lips were blood-stained, and every cough brought up blood. I gave him

Tannic Acid	...	...	...	...	gr. xxxii.
Glycerine	...	...	...	...	dr. i.
Aromatic Sulph. Acid	...	...	...	...	gtt. x.
Water ad.	...	...	...	...	oz. iv.
Mix: Take dr. ii. three times a day.					

He brought up a little blood for two days, and then there was no further return of the trouble. I have used this prescription in many cases and have never had a case of failure. A receipt of similar composition is used in the Brompton Hospital for consumptives.

Methodist Episcopal Mission, Nanking.

PRACTICAL ASEPSIS.

By SAMUEL COCHRAN, M.D.

The following methods of treating the question of surgical asepsis are in common use in New York, and may be considered as fairly representative. A considerable portion have been copied from a collection of printed formulæ compiled by the nurse in charge of the Presbyterian hospital operating room and published in the *Medical and Surgical Report* of the hospital in 1896. Some have been modified from the form then in use and several added:—

PREPARATION OF THE PATIENT FOR OPERATION AT 2 P.M.

A bath is given on the preceding afternoon. Two drachms of compound licorice powder is given at 6 p.m. and an enema the next morning at 7 a.m. On the preceding afternoon the field of operation is scrubbed for a wide area with green soap, and shaved. A gauze compress is then applied, wrung out of a solution of one part of solution of green soap to six of water. This is left on for three to six hours; this softens the skin and removes all superfluous scales of epidermis. The field is then washed thoroughly with green soap, alcohol, ether, and a 1-1000 bichloride solution. A compress is applied wet with 1-5000 bichloride and left in place till the morning. On removal the field is again washed with alcohol and ether and a compress, wet in 1-3000 bichloride, is applied, to be removed on the operating table, when a final thorough washing is done with alcohol, ether, and 1-1000 bichloride. During the operation the patient, except in the immediate vicinity of the wound, is covered with sterile towels.

VAGINAL PREPARATION.

A green-soap suds douche is given on the preceding afternoon; this is followed by a douche of 1-1000 bichloride. If it can be done without pain, the vagina is scrubbed with gauze swabs and then packed with gauze wet in a solution of 1-2000 bichloride. This packing is removed on the morning of the operation and a douche of 1-1000 bichloride is given. A fresh washing with green soap and 1-1000 bichloride is done on the operating table.

SUITS, GOWNS, UTENSILS, ETC.

In vaginal and rectal operations the enema on the morning of operating should be repeated until it comes away clear.

Surgeons' suits or gowns are made of cotton duck, and should have short sleeves. They are sterilized, before using, in a steam sterilizer.

Nail brushes are generally made of vegetable fibre. They are sterilized in the steam sterilizer and are placed, before operation, in a bowl of bichloride solution in the surgeons' washing room. The hands and arms of the operator and assistants are washed with green soap and a brush for ten minutes, using several changes of hot water. Then there is taken about half a drachm each

of sodium carbonate and chloride of lime and mixed in the palm of the hand, adding a little water. The paste so formed is rubbed over the hands and forearms for several minutes, setting free nascent chloride. The paste is washed off in sterile water and the hands washed in 1-1000 bichloride for three minutes. By another method instead of the lime and soda mixture the hands and forearms are dipped in a hot saturated solution of potassium permanganate until they are stained a deep mahogany. They are then dipped in a hot saturated solution of oxalic acid until discoloration is complete, and this is followed by normal salt solution. Finally they are washed in 1-1000 bichloride for three minutes.

Glass dishes are washed clean with soap and water and then immersed in 1-1000 bichloride for at least fifteen minutes; or the solution is allowed to stand in them for that length of time. Carbolic acid solution, 1-20, may be substituted for the bichloride.

Dressings and towels are sterilized for one hour at five pounds pressure, giving a temperature of 228° F. If to be kept for future use they should be further sterilized for one half hour on each of the two following days.

Gauze pads for abdominal sections and cotton sponges are sterilized in the same manner as the dressings.

Reef sponges are washed through two waters then bleached in a saturated solution of potassium permanganate and a saturated solution of oxalic acid and washed in two waters. They are then soaked for twelve hours in a solution of hydrochloric acid, two drachms to the pint. They are again washed until free from sand and perfectly clean, using fifteen to twenty waters. They are soaked for twenty-four hours in a solution of bichloride, 1-1000, again washed in 1-1000 bichloride and kept for use in three per cent. carbolic acid solution. All handling, from the permanganate solution on, should be done with sterile hands and instruments. No sponges should be used in more than one operation.

INSTRUMENTS.

Dull instruments are boiled for five minutes or more in one per cent. sodium carbonate solution. Instruments having an edge are boiled one minute. After use, all blood, pus, etc., is sponged away; they are boiled five minutes in sodium carbonate solution and scoured with sapolio and a bristle brush. Then they are washed in hot soap suds and carefully dried.

Silk is wound on glass reels about two yards to reel and put in large test tube plugged with cotton; four to six reels to a tube. They are sterilized in the steam sterilizer an hour on two successive days. Silk-worm gut is put in plugged tubes and sterilized in the same manner as the silk. Catgut is wound on reels, two yards to the reel; placed in an air tight jar and covered with ether for twenty-four hours; the jar being shaken every four hours. The ether is poured off and the reels are immersed for six hours in an aqueous solution of bichloride, 1-1000. This is poured off and the catgut covered with absolute

alcohol until four hours before using. The reels are then removed with sterile forceps and put in test tubes which have been already sterilized. Enough ninety-five per cent. alcohol is added to cover the reels by half an inch and yet leave three inches of air below the plug, which should be of sterilized cotton. Place the tubes in a water bath with a towel in the bottom; the water coming up only to the level of the alcohol in the tube. Start with tepid water and heat with a Bunsen burner until the alcohol begins to boil slightly, when the flame should be withdrawn. The alcohol will continue to boil for fifteen minutes.

It is possible to obtain iron jars made expressly to sterilize catgut, which can be so securely closed as to make it possible to boil alcohol for hours with an insignificant loss.

Some surgeons now sterilize catgut by heating up to eighty centigrade for an hour in a glass jar surrounded by sand bath. This drives off all moisture.

Cumol, a hydrocarbon, is poured over it and the temperature raised to 165° C, which equals 331° F., a temperature slightly below the boiling point of cumol.

It is kept at this temperature for one hour, after which the cumol is poured off for future use and the catgut left in the sand bath till the remains of the cumol is driven off, when it is put in sterile tubes and is ready for use.

This is the modification of Krömy's cumol method devised by Drs. Clarke and Miller, of the Johns Hopkins Hospital.

Chromicized catgut is prepared as follows :—

1. Soak in *ether* one week.
2. Dry at temperature not exceeding 113° F.
3. Place in the following solution for six hours :—

R Potass. bichromat.	...	...	...	1.5 cc
Acid. carbolic	...	...	...	10. cc
Glycerin	...	...	...	10. cc
Aquæ	...	...	...	480 cc

4. Stretch on a frame to dry at a temperature not exceeding 113° F. for ten days.
5. Wind on glass reels.
6. Sterilize under pressure in absolute alcohol for ten hours.
7. Keep in alcohol, air and fluid tight.

This catgut will not be absorbed by the tissues for three to four weeks.

Normal salt solution is sterilized for an hour in the steam sterilizer in glass flasks plugged with cotton.

Iodoform Gauze. Absorbent gauze is cut to the desired size and sterilized one hour. The following preparation is sufficient to make one square yard of gauze :—

Normal salt solution	...	...	60 cc
Iodoform powder	...	...	15 cc
Solution green soap	...	...	5 cc
Carbolic acid	...	...	0.8 cc

Add enough clean castile soap to make a good suds. Wring the gauze through the solution until it is all taken up and then fold and put in sterilized rubber tissue. The hands, forearms, and dishes should all have been previously sterilized. Rubber tissue is scrubbed with a brush and liquid green soap and soaked in 1-1000 bichloride for twenty-four hours. It is kept in sterile normal salt solution. Rubber sheets for the operating table, Kelly pads, etc., are soaked for twelve hours in 1-40 carbolic acid, then scrubbed with brush and sapolio and again washed with carbolic acid solution 1-40. During operations they are always covered with sterile towels.

American Presbyterian Mission, Nanking.

CATARRH OF STOMACH IN THE ETIOLOGY OF SPRUE.

By E. D. VANDERBURGH, M.D.

I have noticed in several cases of sprue which have come under my care that catarrh of the stomach, with a continual spitting of frothy mucous, often precedes the attack for two or three months before the diarrhœa, sore mouth, and other symptoms of sprue appear. There is always associated with this a hoarse, hollow, deep cough, which is most distressing to hear. Their appetite does not seem to be affected much, but they are troubled with borborygni and attacks of indigestion which render them incapable for a time, but they do not generally take to bed or consider themselves sick, but still that catarrhal spitting continues.

It is the cough which generally brings these cases first under attention; they say they have caught cold and wish cough medicine. An examination of the blood of these cases generally results in the finding of malarial pigment. As malarial pigment is found in many cases who come to be treated for other troubles than either malaria or cough from stomach, however, it does not mean as much as it might here in Nodda where all kinds of malarial parasites are to be found. Only this that it would tend to show that the catarrh of the stomach has some connection with the sprue. Malarial parasites will cause catarrh of the stomach, which often terminates in catarrh of the intestines, sore mouth, glandular disturbances, and other symptoms diagnostic of sprue.

These patients are not generally so much emaciated for the first few weeks, and in many cases do not look very badly until their bowels begin to be affected, when their cheeks begin to be sunken and they become easily tired.

In such cases it is obvious that the patient should be instructed most carefully as to his diet, and for treatment I find that if I can get them to take two bowls of hot water about half an hour before each meal it does them more

good than anything else. I find that they won't take the hot water unless they have a reason very apparent to them, so I give them six charcoal tablets (plain) and tell them that each tablet requires one bowl of hot water and that two tablets must be thus taken before each meal in water as hot as they drink when drinking tea. With this treatment and a very light diet these cases, taken early, seem to do well.

American Presbyterian Mission, Nodoo, Hainan.

CHEMISTRY IN THE MIDDLE AGES.*

By RICHARD WOLFENDALE, L.R.C.P. and S E.

Mr. Chairman, ladies, and gentlemen: I want for a little while this evening to lead you into a world of chemistry, and the oldest world of all our new eras, for when almighty God spoke, "let there be LIGHT!" then my subject began. Out of chaos—dark chaos—came our beautiful world, full of life, animals, flowers, minerals, members of vegetable, mineral and animal kingdoms. The bird on the wing in its airy flight, the fish in the sea with its inimitable life, the flowers of the field, the sky-blue of the firmament, the sun, moon, and planets; the sunset and the rainbow hues, the untold treasures of earth—gold, diamond, sapphire, ruby, lead, silver, coal, and iron—and lastly God's best work MAN,—all alike are the fruits of a chemical mind. But Mr. chairman, wide as my subject in the abstract may become, I have chosen for myself the chemistry of only one period—that of the middle ages, and have done so more for its romance than with any desire to do justice to the theme under consideration to-night.

In the Middle Ages there were no chemists proper, nor was there a distinct science-chemistry; the chemists of those days were called *alchemists* and their craft *alchemy*. It is to the Arabs, from whom Europeans got the name and the art, that we owe the prefix *al*. As if *chemia* had been a generic term, embracing all common chemical operations, such as the decocting and compounding ordinary drugs, the grand operation of transmutation was denominated in contradistinction—the *chemia*, the chemistry of chemistries, *alchemy*.

Alchemy, then, is to modern chemistry what astrology is to astronomy, or legend to history—a myth, a romance. In the eye of the astrologer a knowledge of the stars was valuable only as a means of foretelling, or even of influencing future events. In like manner the genuine alchemist toiled all night and all day with his crucibles and alembics, calcining, subliming,

* Part of a paper read before the Chungking Literary Society, April 24, 1899.

distilling, filtering, and refining, not with a view of discovering the chemical properties of substances and the proportion of atoms in each, as modern chemistry understands, but with two or three grand objects as illusory as they are impossible, viz., to discover

- i. The secret of transmuting the baser metals into gold and silver ;
- ii. The means of indefinitely prolonging human life, "elixir vitæ," "elixir of life ;"
- iii. Perpetual motion.

Who of us has not been charmed with pictures of caves and underground furnaces wherein worked in secrecy (and dread for the craft was regarded with suspicion by the common people, and these necromancers were burnt as witches) an old, old man, with long cloak and earnest features, smelting an unknown compound over a mud-built furnace? A dim lamp hangs over his white head, and to the roof is suspended a dead but gaping crocodile ; in one corner is a stag's head with high antlers, in another stands a suit of mail armour usually worn by soldiers in those dark ages. Rats and lizards in numbers are running over the floor, and the old man's solitary tools are a bench and stool, a file and long spoon, an old knife and a small hammer. He has one companion who brings him his wherewithal to live—his little golden haired girl—who is loved by the warrior who owns the suit of mail, and has as much sympathy with the old man's calling as his iron suit and those stern fighting days allowed. Where did history's arch-poisoners get their fatal doses from if not from these men? Louis XIV, Julius Cæsar, Nero, all employed an alchemist. Sir Walter Scott makes of Donsterswivel in his "Antiquary" a curious mixture of astrology, alchemy, quackery, and imposture ; and Sir Bulwer Lytton in his excellent novel, "The Last of the Barons," shews in his character of an old man who was making a perpetual motion machine how these three objects took hold of men, and men's lives to find out and give to the world. Looking back centuries it is easy for us to laugh at these old-time seed-sowers, but without them our wonderful present-day discoveries would be as dark as nature's laboratories in which they had to work.

Let us now trace how far alchemy succeeded in the middle ages, its history, and its effects on mankind. The Roman Emperor Coligula is said to have instituted experiments for the producing of gold out of orpiment (*sulphuret of arsenic*), and in the time of Diocletian the passion for this pursuit, together with magical arts, had become so prevalent in the empire that the Emperor is said to have ordered all Egyptian and old-time books, treating of gold and silver, to be burnt. At that time also were appearing books on this art written by Alexandrine monks and hermits, but bearing famous names of antiquity, such as Democritus, Pythagoras, or Hermes. At a later period the Arabs took up the art, and it is to them that European alchemy is directly traceable, as I have said.

ALCHEMY: ITS HISTORY AND USES, AND EFFECTS ON MANKIND.

A school of polypharmacy flourished in Arabia during the Kalifates of the Abbasides. The earliest work of this school now known is the "Summa Perfectionis," composed by Gebir in the eighth century; its founder—Gebir—was greatly esteemed in the east, and afterwards in Europe, where alchemists, down to the time of Van Helmont, did nothing more for discovery than repeat his experiments. A contemporary reckons Gebir one of the subtlest geniuses of the world, and Roger Bacon bestows on him the epithet "magister magistrorum." He wrote an immense number of treatises on alchemy, of which a considerable number are extant in the form of Latin versions. An edition of his works in Latin was published at Dantzic in 1682 and another in English in 1678. The principle laid down at the commencement of these is—that art cannot imitate nature in all things, but that it can and ought to imitate her as far as its limits allow—so far so good. The "Summa Perfectionis" is a text-book or collection of all that was then known and believed, and when viewed in its true light is a wonderful book. It appears that these Arabian polypharmists or alchemists had long been in the habit of firing and boiling, dissolving and precipitating, subliming and coagulating chemical substances, working with gold and mercury, arsenic and sulphur, salts and acids; and had really known and probably used many of the present-day chemicals (in crude forms). Students in those early days were taught that there were three elemental chemicals—mercury, sulphur, and arsenic; to-day we teach our students upwards of seventy and retain the old Latin name. These three, though not intrinsically valuable or precious (especially the first two), seem to have fascinated the minds of these early alchemists by their potent penetrating qualities. They saw mercury take up gold—the most incorruptible of elements—as water dissolves sugar, and that if a stick of sulphur be presented to hot iron the sulphur is penetrated like a spirit, and makes it run down in a shower of solid drops—a new and remarkable substance—possessed of properties belonging neither to iron nor to sulphur. These Arabians thought that every metal was a compound body made up of mercury and sulphur in different proportions. With these very excusable errors in theory, however, they were very practical chemists, and it is very largely to their toil and patience that we owe our own light. They toiled away at the art of making and mixing "many medicines" (polypharmacy) out of the various mixtures and chemical reactions that they knew. We should call them "meddlers." They had their pestles and mortars (and so have the Chinese), their crucibles and furnaces, vessels for infusion and decoction, sublimation, fination, lixiviation and filtration, coagulation, etc. They had their leeches for sucking poisoned wounds, their counterirritants and blisters, their potions and applications, but when all is said their scientific creed was only transmutation and their methods blind gropings in blind centuries of time; and yet in this uncouth way these

"meddlers" found out many a new body and invented many a useful process.

POLYPHARMACY.

Medicines given to the sick of those days consisted of earthworms, snails, woodlice, frogs, toads, puppy dogs, foxes (a fat one of the middle age if procurable), the skull of a man who had been hanged, the blood of the cat, urine and excrements of various animals, etc. Electuaries were ordered often with fifty, sixty-two, or more ingredients. Mathalins, a Roman, prescribed 124 ingredients as his "great antidote against poison and pestilence." Doubtless several remedies would be rendered inert by others and a good thing for the sick one too. The Arabian physicians did good service to medicine in introducing new articles from the East from the vegetable kingdom into European materia medica, viz., rhubarb, cassia, senna, camphor, etc., and we also read "in making known what may be termed the first elements of pharmaceutical chemistry, such as a knowledge of distillation and of the means of obtaining various metallic oxides and salts."

From the Arabs alchemy found its way through Spain into Europe and speedily became entangled with the fantastic subtleties of the scholars and their philosophy. In the middle ages monks and saintly popes got hold of it, and also sovereigns, as far as it suited their own ends. Pope John XXII took great delight in it, though afterwards forbidden by his successor. The earlier works on alchemy are those of Roger Bacon (1214) and Albertus Magnus (1205). Bacon condemns magic, necromancy, charms, and all such things; he believes in the convertibility of inferior metals into gold, but does not profess to have been successful in the attempt. He knew of the qualities of gunpowder. He had more faith in the elixir of life (the second of our points) than in gold making, and called that metal, dissolved in nitro-hydrochloric acid—*aqua regia*, *regal water*, or *elixir of life*. Urging it on the attention of Pope Nicholas IV, he informs his holiness of an old man who found some yellow liquor (solution of gold is yellow) in a golden phial when ploughing one day in the island of Sicily. Supposing it to be dew he drank it off, and was transformed into a hale, robust, and highly accomplished youth! Bacon, no doubt, took many a dose of this gold water himself. Albertus Magnus was master of the practical side of his craft. He knew alum, caustic alkali, and the purification of costly metals by aid of lead. He added another to the sulphur and mercury theory of the Arab Gebir, viz., water, and regarded it as nearer the soul of nature than either sulphur or mercury. He appears indeed to have thought it the primary matter—the source of all things—an opinion held by Thales, the father of Greek speculation. Thomas Aquinas and Raymond Sully are names of middle age alchemists; the former was the first to use the word "amalgam" and the latter first employed

"chemical symbols," such as Cl, Pb, Hg, As, etc., and "fanciful names"—"flowers of sulphur," "spirit of salt," "aqua regia," etc., etc., etc. He laid much stress on spirit of wine, calling it *aqua vitæ ardeus*, and in his enthusiasm said it was the true *elixir vitæ*. Again, one of the most celebrated alchemists was Basil Valentine (1394), who introduced antimony into medical use. He, along with some previous alchemists, regarded salt, sulphur, and mercury as the three bodies contained in the metals. He inferred that the philosopher's stone must be the same sort of combination—a compound of salt, sulphur, and mercury, so pure that its projection (influence) on baser metals should be able to work them up to greater and greater purity till at last they should become silver and gold. He knew practically how to obtain iron from solution of potash, etc., so he may be ranked as the founder of analytical alchemy. About this time we find a Pope, John XXII, and a King, Alphonso X, occupying themselves with alchemy, but the pope in a well-known bull denounced all searchers for gold "who promised more than they could perform;" neither of them, however, appear to have helped their craft on to higher lines. But more famous than all was Paracelsus, in whom alchemy proper may be said to have culminated and modern science of chemistry to have begun. He stands amongst all his contemporaries as a prophet of a revolution in general science. The "occult" sciences in him received their death blow. He held with B. Valentine that the elements of compound bodies were salt, sulphur, and mercury, representing respectively earth, air, and water, and all kinds of matter were reducible to one or another of these forms. Everything was either "a salt," "a sulphur," or "a mercury," or "mixed." There was, however, one element common to the four—a fifth or "quintessence" of creation—an unknown and only true element of which the four generic principles were nothing but derivative forms, or embodiments; in other words, he inculcated the dogma that there is *only one* real elementary matter, and nobody knows what. His prime element, he appears to think, is the universal solvent, of which the alchemists were in quest. The discovery of "*elixir vitæ*" is not connected with his name, but he seems to have had the notion that if this quintessence of creation could be got at, it would prove to be the very "philosopher's stone!"

What is the "philosopher's stone?" The philosopher's stone appears to be a panacea or talisman sought for either in the form of a metal or a solvent, so pure or so magnetic that it had the power of attracting baser bodies to itself and finally transmuting them into precious metals, viz., gold and silver. It was a myth, like most other things in those middle ages; the theory of the talisman seems to have been a good ideal, but in practice was much ill-used. Paracelsus was a great innovator, and with the historians of his day no names were too bad for him—madman, charlatan, impostor! Was it not

always so? Was not Columbus scorned whilst he dreamed of a new continent across the seas? Was not Galileo termed mad when he said the earth was round? Along the world's great history there are souls of fire always enveloped in clouds, out of which ever and anon lightning flashes of genius burst forth, who bear the world's sons and daughters towards a goal forseen rather than in sight, and by a rough and rugged road with endless turn and windings. Such a soul was Paracelsus. His pride and ambition were more towering than the mountains of his native Switzerland, and he believed that through him a new race—the Germans—were destined to succeed to science. Greeks, Arabians, and Italians, their immediate disciples, had had their day with him, and through him the Germans were to become scientists. Paracelsus studied under an abbot named Trithema of Spanheim and under his father, who was also a distinguished alchemist. Afterwards he leaves them for strange masters—old wives and workmen and miners round his home who confide to him their secrets. He travelled much, and lastly he practised medicine as the doctor of the poor and gave them systematic lectures in their own tongue. Paracelsus' work and writings are continually oscillating between *magic* and *science*. He could not overthrow romance altogether, but to his everlasting honour, be it said, staid and truthful science in the end always carried the day. For instance, he is publishing "the green lion" prescription for making gold, and he ends thus: "Away with these false disciples who hold that this divine science which they dishonour and prostitute, has no other end but that of making gold and silver. True alchemy has but one aim and object—to entreat the quintessence of things and to prepare arcana, tinctures, and elixirs, which may restore to man the health and soundness he has lost." So you see Mr. Chairman we have arrived at a stage further than earthworms, snails, frogs, toads, puppy dogs, and skulls. He asserts that alchemy was indispensable, and that without it there is no such thing as medical knowledge. Nature, as he viewed it was not a clear and intelligible system of which the form declares the essence—there is a spirit at work beneath the form—beneath the outside shell. What there is written on this shell no one can read but the initiated who can separate *the* real from the apparent. "At the same time," he says, everything is not active. To separate the "spirit" active portion of this outside shell from the passive is the proper province of alchemy.

Another point in which Paracelsus stands between the modern and ancient world of chemistry is clearly seen, is the hesitation he shews when discussing the influence of the planets over internal organs of the body. When he assigns the brain to the moon and heart to the sun he might say: "I do not think with Plato that the brain is all; it is but the reflector and guide; the heart is the regulator of the organism."

After Paracelsus the alchemists of Europe became divided into two classes—one class was composed of men of diligence and sense, who devoted themselves to the discovery of new compounds and reactions, practical men and observers of real facts and the legitimate brethren of our modern chemists and scientists, such as Lavoisier, Kepler, Baron Liebig, Faraday, Priestley, Scheele, Palissy, Boyle, late Professors Tyndall and Huxley, Sir Humphry Davy, Sir Henry Roscoe, and a host of others—world-famed. The other class lost the way to light completely and took up the visionary, magical, superstitious, and fantastical side of the older alchemy and carried it to a degree of extravagance before unknown and absurdly ridiculous. Instead of genuine, useful works they compiled mystical trash into books, talking of “red bridegrooms,” “lily brides,” “green dragons,” “royal baths,” and “waters of life.” Of this class was Caviar. I have seen his book. Between heaven and earth and man’s nature they were ever seeking to discover affinities and ignored differences which would have been fatal to their systems. Thus seven metals they made to correspond with seven planets. According to them even heaven—the abode of spirits—was partly physical; and even in the mineral world there was a spiritual element, viz., color, brightness, or “tincture.” The sun, which vivifies all nature, the most active heavenly body typified gold, the moon represented silver, Venus copper, Mercury (both planet and god) the metal mercury, Mars iron, Jupiter tin, Saturn lead, and so forth, and each had its appropriate symbol. This school still talked of the “philosopher’s stone” and of the “powder of attraction” which drew all men and women after the possessor, and the grand “elixir vitæ,” which was to confer immortal youth upon the student who was brave enough and pure enough to kiss and drink the gold draught.

To the world at large—to all mankind—is alchemy a failure? Were these embryo-chemists of the middle ages merely “meddlers?” Indeed no! we in our day could not have found out many a process but for them—in fact we are imitating them every day with our pestles and mortars and measures and scales of finer texture true, but the same principle is there. They calcined, we calcine, they battered to powder, we do the same; they distilled, we distil; our processes are theirs. Where we differ it is in the object we have in view—the result we want to arrive at. These alchemists sought for physical conditions in the invisible and spiritual world, and for a “spirit” even in stocks, stones, woods, and metals; we know better than that. Then the distinction between animal, vegetable, and the inorganic world was unknown, and indeed it was impossible that it should be known. We have seen that those strange products that escaped from the retorts of these men of the sacred art were called by them “souls;” we, their successors, on a closer acquaintance with them, term them “spirits” or “spirit.” In those days there were no microscopes and no lenses, and the fine definition of ‘life’ and ‘a living thing’ could not be

made out; things to them were 'dead' or 'alive' as they walked, breathed, or talked. The large worlds of botany, microscopy, analytical chemistry, physics, electricity, geology, physiology, and biology, were unopened to their searching eyes. They were too busy easting horoscopes and such like and forgot to interpret the different forms and actions the crude drugs they were using could undergo. A 'gas' was just atmosphere. Their ignorance of the action of the O. of the air prevented them from getting very far on in their experimental researches, and they knew no difference whether an experiment was performed in a closed vessel, or in the open air; in a moist atmosphere, or in an absolutely dry one; at sea level, or on a mountain top. Priestley, Lavoisier, and Scheele, by the use of the test tube and the balance, weighed and tested the results of ancient alchemy. Hence modern chemistry was born. The most important discoveries in chemistry, be it said, emanate from the men who combined chemical experiments with a taste for alchemic theories. For instance, one man thought he had found in the "shining pills" of phosphorous (phosphorescent in the dark) as efficacious a remedy as potable gold. And phosphorus is to this day sometimes given in pill form for nervous exhaustion and brain worry.

To their fellow-men these alchemists were heros quite as much as the ironclad knight of the middle ages. They had the power of life and death in their hands, as witness the terrible faith History's arch-murderers placed in them; then they were the monks and scholars of the period in which they lived—the "fathers" of the people. Only a very few could read in those days, much less read and understand such Latin works as "*Opera Omnia*," 1680; "*Enchiridion Philosophiæ Hermeticæ*," 1638; and "*De Abristransmutationibus*," 1610, and a host of others. The charlatan came to them for a lover's potion, the old man for something to obtain immortality, the devil in a man for a strong unerring poisonous dose, and the sick for a medicinal draught. They have handed down to us many familiar terms: crucible (Latin *crux* = a cross), from the idea that nature must be tortured to make her reveal her secrets; alcohol (Arabic *Al-kohl*) = anything burnt; *elixir* (from *el-kesir*) = essence; potash (German *potasch*), evidently = the ashes of the pot; tartar (Greek *tartarus*, hell) = acid, sour. Laudanum is a corruption of *laudandum*, which you all know is a tincture of opium of varying strength. Alkali = ashes, *borax* = a white substance, *lacquer* (for *lac*) = resin. From the alchemists we get both the ideas and the words affinity, precipitate, reduce, saturation, distillation, calcination, quintessence, *aqua vitæ*, *aquæ regalis*, *aqua secunda*, and cobalt = the genii of mines.

Thus these old time sages were like children wading ankle deep in the mighty ocean, and *only* afraid to launch into the deeper waters beyond because they possessed no materials to navigate them.

London Mission, Chungking.

RHEUMATOID ARTHRITIS.

By E. RUEL JELLISON, M.D.



The illustration shows a marked case of deformity from arthritis. The patient had suffered from pain of increasing severity for four years until she was totally incapacitated, being unable to do any ordinary labor about her house. I gave her colchicum and iodides, but she received no benefit from them. The plate shows the subluxations and ankyloses very well.

Methodist Episcopal Mission, Nanking.

Medical and Surgical Progress.

Medical.

ERADICATION OF CONSUMPTION.

A vital question of the present day, perhaps the most vital one, is the eradication of consumption. Formerly we knew nothing of the nature of tuberculosis; now we know it, and with this knowledge have come imperative duties. No one part solely of the habitable globe is interested in destroying the disease, for it is everywhere. No climate, no race is absolutely exempt, though some races and climates suffer more. It is in Iceland as in Brazil; it accompanies armies; it is found on the decks of vessels. Of every thousand persons from two to three die of it; in the country somewhat less, in large cities more; there may be as many as seven or eight, and even two or three to the thousand represent about one-seventh of the mortality from all causes. It is calculated that in the United States alone there are a million of people affected with it. It is more destructive than epidemics, more destructive than yellow fever, than cholera, because it is continuous and more widespread. In the last extensive epidemic of yellow fever in this country, in the Gulf States in 1878, about 16,000 died of that disease. The whole nation stood aghast at the fearful sacrifice of life; yet in the same year the deaths from consumption in the cities of New York, Brooklyn, Boston, Philadelphia, and Baltimore alone were over 11,000, and in the single State of New York to this day about 13,000 are annually the victims. With these terrible figures everywhere staring us in the face it would be naturally supposed that widespread alarm would conduce to most active measures to stop such ravages. But this is not the case. The facts are accepted with stolid fatalism. A few cases of yellow fever,

of cholera, rouse a community and often excite a panic that leads to most rigid quarantine, even with the irregular method of shot-gun and rifle; thousands of cases of consumption are followed to the grave by mourners with the thought that these deaths are not preventable; they are the will of God.

Yet they are largely preventable. Since our knowledge that contagion is the main cause of the spread of consumption, the whole subject has assumed a different aspect. There was formerly in lack of knowledge excuse for non-action; there is none now. The disease is contagious, though not actively so, and this very absence of great virulence in its cause is the most hopeful reason for believing that the germs can be destroyed, and, with them, the disease. By direct therapeutics, by serums and other means, very little has as yet been accomplished. It may come some day, but up to this time there are no adequate results from the many and earnest trials. By improved hygienic means and disinfection something has been effected. The encouraging figures reach us, for instance, from Denmark,* that whereas in Copenhagen the mortality in the years 1870 to 1874 was 3.42 to a thousand living persons, an increase on former years, it diminished in the years 1895 to 1898 to 1.86, a result largely attributed to the sanitary means employed or more rigidly enforced since Koch's great discovery of the causing germ of tuberculosis, though it is fair to state there was also, from the improved general sanitation, lessening in the rate of all diseases. A decrease of pulmonary tuberculosis is strikingly seen, too, in Massachusetts, where the death-rate

* Lehmann, Kongress zur Bekämpfung der Tuberkulose, 1899.

has of late years fallen from 4.2 to the thousand inhabitants to 2.2.

Whatever may be our power ultimately of arresting tuberculosis in the individual affected with it the great thing to be done now, if we would limit this scourge, is to treat it as we do any other contagious malady—separate the sick from the well; moreover, we must separate them by placing them so far as possible in localities where abundance of sunshine, purity of air, and nutritious food can help towards recovery. When we reflect on the tremendous numbers to be dealt with, and the fact that the great majority of the cases are among the poor, the enormity of the task seems appalling. But it must be done;

“Diseases desperate grown,
By desperate appliance are relieved,
Or not at all.”—*Hamlet*.

—Dr. G. M. DA COSTA in *Philadel. Med. Jour.*

PREVENTION OF TUBERCULOSIS.

The meeting held at Oxford last month to form a local branch of the National Association for the Prevention of Consumption should go far to convince the more sceptical of the public that the movement is not merely the passing fancy of a few fad-dists, but is supported by the convictions of the most scientific and sober members of the medical profession.

The regius professors of the sister universities of Oxford and Cambridge spoke with all the responsibility of their office to an audience accustomed to recognize the authority of learning. They were able to state that the communicability of the disease of tuberculosis had been conclusively demonstrated, and that therefore the belief that it may be prevented is warranted. Sketching briefly but clearly the main facts as to the nature of the disease Professor Clifford Allbutt indicated the principles on which preventive measures must be

based. He epitomized the precautions as an active crusade against three D's—damp, darkness, and dirt; a crusade which, as he reminded his hearers, every individual could carry out in his own home. In getting rid of these evils they would at the same time be getting rid of many other pests besides tuberculosis, and they would be raising the standard of the general health to a much higher level. There is much wisdom in inculcating the general principles of hygiene in such public meetings, for general hygiene appeals most strongly to the mind when its application to a special evil is forcibly impressed. Sir J. Burdon Sanderson laid stress on the necessity for organization. “Whatever they did they were not likely to accomplish anything very successfully unless they did it in a systematic way.” From the Germans, he said, we might learn the value of organization and intelligence in the application of it, but we should not necessarily imitate what was done in Germany. “Organizations were only successful when they were adapted to the peculiar circumstances of the place for which they were intended.” To those who look below the surface the meeting at Oxford is an event of considerable importance, the influence of which, it may be hoped, will spread far and produce a powerful and lasting effect.—*Brit. Med. Jour.*

MIXED INFECTION IN PULMONARY TUBERCULOSIS.

Sata (*Beiträge zur pathol. Anat., Suppln.*, No. 3) has published the results of the examination of twenty-one cases of phthisis with reference to the question of mixed infection. The bacteria which in the course of the tuberculous process find their way into the lungs are first contained in the cavities and then pass into the walls of the latter and produce in association with the tubercle bacillus pneumonia, toxæmia, and septicæmia. Broncho-

pneumonia results from the aspiration of the contents of the cavities into healthy lung tissue. Pneumonia is the principal result of mixed infection, and examination will show the secondary bacteria to be present in large numbers and in the walls and pneumonic surroundings of the cavities. Secondary broncho pneumonia is in the first instance due to the tubercle bacillus, but the foci eventually contain other bacteria. The most advanced cases of phthisis are examples of mixed infection, and most of the pathological changes present are due to the latter. Clinically the condition can be deduced from the presence of fever. The most important bacteria in question are streptococcus pyogenes, staphylococcus pyogenes aureus, diplococcus pneumoniae, pneumo-bacillus and its varieties, and a pseudo-diphtheria bacillus pulmonaris often found by Sata.—*Brit. Med. Jour.*

RECTAL INJECTIONS OF COD-LIVER

OIL IN PHTHISIS.

Zeuner (*Therap. Monats.*, June, 1900) reports good results from the use of cod-liver oil enemata in cases of phthisis, particularly in one which had been sent back from Goerbersdorf as being too far gone for treatment there. He lays great stress on the composition and method of use of the enemata. They were not more than four ounces in quantity, and were administered once a day, an hour after the rectum had been emptied by a simple enema or immediately after a natural evacuation. In order to ensure their prolonged retention they were warmed and injected very slowly; the patient being placed in the knee-elbow position; if this was done at night the injection was not evacuated, but remained in the rectum for twelve or thirteen hours. The cod-liver oil was previously digested for two hours with the following substance: Two parts of pure pancreatin, 0.2 of inspissated

ox bile, 0.6 of sodium chloride, and 20 of water to each 100 of oil. Immediately before injection the emulsion was well shaken up and three drops of eucalyptus oil added. The pancreatin is added to assist the absorption of the fat globules and the bile to aid their passage through the intestinal wall, which is also furthered by the sodium chloride (Leube). Finally the emulsion must be alkaline, or at least not acid.—*Brit. Med. Jour.*

THE STERILIZATION OF MILK.

With the diffusion of knowledge on the subject of the causation of tuberculosis, and of the means by which the disease may be prevented, the question of sterilizing milk for family use has become one of practical interest to many. The careful mother, no less than the family doctor, demands sterilized milk for the nursery. But whilst acknowledging the necessity for destroying any micro-organisms which may exist in the milk many persons complain that milk sterilized by heat is rendered less palatable by the process; sterilized milk may be safer, but it is not the same as fresh milk. Milk which has been heated above 155° F. for fifteen or twenty minutes is altered in character as well as in taste; the cream will not rise as in new milk, and the whole appears more watery. This is due to the fact that the fat globules, which in fresh milk are aggregated into minute clusters, become uniformly diffused throughout the liquid under the influence of heat. This aggregation of the fat globules is not broken down if the temperature does not exceed 140° F., but at this temperature, according to Forster and de Man, it would require an hour to destroy the bacilli of tuberculosis. Some recent investigations by Professors Farrington and Russell at the agricultural experiment station of the University of Wisconsin, U. S. A., show, however, that with

certain precautions milk may be completely sterilized at a temperature of 140° F. in ten or fifteen minutes, and will then lose none of the characteristics of fresh milk. They found that the "scalded skin" or pellicle which forms on the surface of milk heated in a vessel at rest will protect the bacilli, so that they may escape destruction on a short exposure to the moderate heat. By agitating the vessel so that the "scalded skin" layer is prevented from forming, complete destruction of tubercle bacilli is ensured by a temperature of 140° F. maintained for about fifteen minutes. Further experiments are being made to determine the exact period of time necessary and the best method of carrying out the process under factory conditions. As the authors remark in their report, "the use of a temperature of 140° F. will do away with the only objection which has ever been urged against pasteurized products."—*Brit. Med. Jour.*

THE PREVENTION OF SUMMER DIARRHŒA.

Every year summer diarrhœa claims a large tribute of infant lives, and although at present the meteorological conditions are hardly such as favour its prevalence the subject is always one of anxious interest to those responsible for the health of large towns at this season. Dr. F. J. Waldo, Medical officer of health of the Vestry of St. George-the-Martyr, Southwark, dealt with the subject recently in the Milroy lectures which he delivered before the Royal College of Physicians of London, and he returns to it in his annual report to his vestry. Dr. Waldo finds the *causa efficiens* of the disease in horse dung. Many bacteria are equally at home in the intestine of the horse and of man. These are deposited in the streets in enormous numbers, and when dry are blown about in the form of dust which finds its way into house larders, milk shops,

and restaurants, and contaminate the alimentary material exposed therein. Milk is an excellent breeding ground for bacteria, and this fact may explain why town infants, who are fed mainly on milk, are so subject to the disease, which is hardly found in the country where the road dust is practically free from horse dung. A hot summer supplies the temperature which favours the growth and multiplication of the microbes; on the other hand, during a wet summer the microbes are washed from the air and exposed surfaces. Dr. Waldo's theory is that epidemic diarrhœa is due to a surface pollution derived from street dust. The practical moral which he draws is that sanitary authorities must carry out a policy of "thorough" in regard to what Lord Palmerston, or some one else, called "matter in the wrong place," whether in streets or in houses. The scavenger must be abroad with particular vigour during the third quarter of the year. Courts, alleys, and passages should be systematically flushed with hose. Roads and other pavings should be hard, smooth, and impermeable, so that they can be washed. The best material for roads, in Dr. Waldo's opinion, is hard asphalt or concrete, while courts and yards should be evenly paved with bricks or flags. Milk should be sterilized at the farm and kept in sterilized bottles until required for use. All dairy farms and dairies should be under stringent sanitary control by a combined rural and urban authority. Dr. Waldo suggests the establishment of a public service of sterilized milk, where poor people could obtain a daily supply at a cost sufficient to cover expenses. Diarrhœa is one of the epidemic diseases that has shown no tendency to decrease with the advance of sanitation. There is every reason to believe that it is preventable. This being so, we venture to echo the Prince of Wales' famous question as to certain other preventable diseases, "If preventable why not prevented?"—*Brit. Med. Jour.*

BAD BREATH.

B. Fraenkel (*Archiv für Laryngologie und Rhinologie*, Heft 1, 1900; *Albany Medical Annals*, May) states that in some cases the offensive odor does not really exist, but is a pure delusion, a subjective sensation, as in paranoia and hypochondriasis. If, for example, a person to whom one of these hypochondriacs happens to be talking should turn away the head, he imagines that it is on account of the bad smell he is distributing. The author only considers that class of cases in which an odor is perceptible during expiration. In order to make a correct diagnosis it is important to determine whether the odor comes from the nose or mouth. The patient is told to keep the mouth tightly closed and to blow, first through one nostril and then through the other. The examining physician brings his own nose close to that of the patient, and is then able to detect any odor in the current of air. The patient then repeats this process by closing the nostrils and blowing out of the mouth. After it is determined that the odor comes from the mouth or pharynx, the suspicious places are touched with cotton so as to find out whether the odor originates in some particular part of the mouth or pharynx. Carious teeth are of course frequent causes. Retained decomposing secretions in the crypts of the tonsils frequently cause the odor. This is particularly true of secretion behind the plica tonsillaris. Applications of antiseptic solutions to the tonsils or amputation of the tonsils is the remedy. Sometimes the entire secretion of the nasal and pharyngeal mucous membrane has the disagreeable odor. In such cases antiseptic douches and mouth washes must be used. It must also be determined whether the odor does not originate in the deeper respiratory passages or the œsophagus. —*New York Med. Journal*.

PHYSICAL BANKRUPTCY.

The number of those who are verging on physical bankruptcy seems to

be steadily increasing. Overdrafts on the bank of health are daily drawn with a callous indifference. Chronic invalidism among active members of society has two main types, and it is of practical importance clearly to distinguish between them. On the one hand, there is the person, usually a woman, who has *enjoyed* indifferent health for many years—one of the genus “interesting invalid;” and on the other there is the person, as likely a man as a woman, to whom incapacity for exertion is torture. The one group, with rough justice, is popularly termed “hysterical”—its members are the subjects of a psychosis and a dead weight on the community; and the other is technically known as the “neurasthenic,” and by its members the bulk of the world’s work is done. That it is only the able in mind who accumulate energy sufficient to injure themselves we have on the high authority of Oliver Wendell Holmes. It is the latter group who will well repay the consideration of the medical men of to-day. The onset of their condition is often that while working at a high level of intellectual life there is suddenly superadded some emotional strain, with the result that all their reserve nerve energy is exhausted. Of two ways in which this contingency may be met, one is the better but more difficult; the other the worse, but easier, because more certain if not inevitable. The former is by a timely retrenchment, the other is by an out-and-out bankruptcy, followed by reform. Why the retrenchment method is so difficult seems to be that the nearer the subject gets to the border line the less easy is the recognition of the necessity for pulling up, and the less will-power is there available if the need be realized. The indications for such need, among others, are interference with the capacity for eating and sleeping and the constant sense of effort in accomplishing ordinary routine work. If more energy is taken out by day than can be restored by night an end is

not far off. For those who have actually broken down a slow process of building up is the only resource. Means to this end are obviously absolute, and prolonged rest with change, extra feeding, and good air. The gospel of "fresh air and fatness" is eminently for such. But again and again the door of hope for these is at the end of the long valley of humiliation of an acute illness. During the recent epidemic of influenza it has been remarkable how often the general nutrition of the patient has been distinctly improved as a sequence of the illness; the same thing has often been noticed in regard to typhoid and other acute diseases. Much of the effect is probably due to the enforced rest, to the extra feeding, and to the relief from strain; but it would appear that no small part is due to what may be called an alterative action of the disease or of some of its concomitants, such as fever. For the trophic power of the tissues in many cases seems to be on an absolutely higher level after convalescence is complete than ever before.—*Brit. Med. Jour.*

EXAMINATION OF THE BLOOD: ITS VALUE TO THE GENERAL PRACTITIONER.

At the recent meeting of the American Medical Association, M. Howard Fussell read a paper on this subject in the Section of Practice of Medicine. He said that in some cases the blood examination is as important, and in other cases it is more important than the examination of the urine, and it is already acknowledged that an examination of the urine is necessary in every case. As a general practitioner the author examines the blood in all obscure cases. As a result of such an examination: (1). The physician will avoid administering iron to a patient because the face is pale; since all pale people are not anæmic. (2). It will be found that patients with flushed faces often have decided reduction of the

hæmoglobin and of the number of red blood corpuscles. (3). Patients with cardiac and pulmonary symptoms are sometimes diagnosed as cases of organic disease, when a blood examination would reveal chlorosis. (4). Blood examination will positively indicate the presence or absence of malaria. (5). The diagnosis between leukæmia and other organic conditions, such as tuberculosis and carcinoma of the stomach, may be made. (6). The blood examination combined with the Widal test will diagnose between typhoid fever and malaria; or possibly show a combination of the two diseases. (7). Counting the leucocytes will often give satisfactory results in clearing up obscure conditions. The physician does not need to take a microscope to the bedside of the patient; if the diluting tube is surrounded by a rubber band the blood may be preserved for a long time and the counting may be done at leisure.—*Brit. Med. Jour.*

VALUE OF CERTAIN ARTICLES OF DIET.

There is probably scarcely a reader of the *Therapeutic Gazette* who has not been taught by the perusal of text-books, or by the lectures of his medical teachers, that in the treatment of Bright's disease certain articles of diet must be rigidly avoided, and among these that the various red meats or albuminous foods are to be put aside as largely as possible. Further than this he has been instructed that if any meats are to be allowed the patient he is to use by preference white meat, such as the meat of chicken, in preference to dark meats or red meats, such as mutton and beef.

Personally we have never been able to see why a patient should be allowed to have small quantities of eggs and white meat of chicken, and yet should be denied things such as roast beef, beefsteak, and mutton; and recently a number of articles have appeared in continental journals in which the question has been raised as to whether

there is sufficient chemical and physiological difference between dark and white meat to justify us in permitting the use of one and forbidding the other. As a matter of fact there are no chemical data which justify the prohibition of red meats. Such data as exist seem to be founded upon the supposition that dark meat contains a larger proportion of nitrogenous extractive than does white meat. But this is not borne out by the analysis of the various foods that we are discussing. On the contrary, chemical analysis shows that the difference between them, so far as extractive is concerned, is very slight.

Whatever may be the ultimate result of this discussion we believe that there is one point which is not to be overlooked, namely, that some of these patients at least may be allowed small quantities of red meat sufficiently frequently to prevent them becoming entirely disgusted with white meat, and also in sufficient frequency to prevent them from becoming restive and uncontrollable upon the diet which is ordered.

Finally, it is not to be forgotten that it is by no means necessary to employ skimmed milk as a drink and nutriment for these patients. Unskimmed milk, which contains a larger quantity of fat, is therefore far more nutritious, and is infinitely better for such patients if they can digest it, and most of the patients who can digest skimmed milk can digest ordinary good milk which has not been skimmed. — *Therapeutic Gazette*.

WORMS.

Demateis (*Rif. Med.*, October 7th, 9th, 10th, 1899) reviews Davaine's classical helminthology in the light of modern knowledge. The various nervous symptoms which have been attributed from time to time to "worms" are, in the adult, probably due to suggestion and possible

irritation of hysterogenic points in the intestines. In children they may be due to reflex irritation. The emigration of worms into various organs and tissues of the body is believed by the author to be chiefly the result of increased activity due to elevation of temperature and not to the lowering of temperature which follows death. Intestinal hæmorrhage has been found to occur from the irritation of worms, especially if there is already any breach of surface—for example, an ulcer. — *Brit. Med. Jour.*

MERCURY IN HEART-DISEASE.

Murray (*Rough Notes on Remedies*) writes as follows: "Whenever the subject of heart-disease comes up for discussion there is almost always a complete absence of any reference to the action of mercury; to me this is quite astounding. Digitalis, strophanthus, the nitrites, arsenic, iron, strychnin, and what not, are still the sheet-anchors of treatment. I wish I could have shown an old lady who consulted me a week ago. For ten years she has come to me at intervals, suffering from edema of the legs, ascites, dyspnea, flickering pulse, and many other indications of a weak, dilated heart. Each time she gets into this state I treat her with five grains of blue-pill every night, and a more or less free purge twice a week—in fact, she often treats herself in this way—and she has thus been able to get through ten years of an active and arduous life and to enjoy it without much aid from digitalis, iron, etc. Of course I do not wish to disparage the use of cardiac stimulants and tonics—no one could have more faith in them—but I regard blue-pill as the basis of treatment in all cases of weak, dilated, irritable, and irregular heart, where there is evidence of resistance in the arterial system, or congestion of the venous system." — *Philadel. Med. Jour.*

HUMAN HIBERNATION.

A practice closely akin to hibernation is said to be general among Russian peasants in the Pskov government, where food is scanty to a degree almost equivalent to chronic famine. Not having provisions enough to carry them through the whole year, they adopt the economical expedient of spending one-half of it in sleep. This custom has existed among them from time immemorial. At the first fall of snow the whole family gathers round the stove, lies down, ceases to wrestle with the problems of human existence, and quietly goes to sleep. Once a day every one wakes up to eat a piece of hard bread, of which an amount sufficient to last six months has providently been baked in the previous autumn. When the bread has been washed down with a draught of water, everyone goes to sleep again. The members of the family take it in turn to watch and keep the fire alight. After six months of this reposeful existence the family wakes up, shakes itself, goes out to see if the grass is growing, and by-and-by sets to work at summer tasks. The country remains comparatively lively till the following winter, when again all signs of life disappear and all is silent, except, we presume, for the snores of the sleepers.—*Brit. Med Jour.*

PREVENTION OF COLDS.

Dr. Lorenzo B. Lockard writes as follows on the above subject in the *New York Medical Journal* for July 21st:—

“During the first twelve weeks of life the infant should be given a daily immersion bath at 95° in a warm room well protected from draughts. At the end of this time the temperature of the water is to be gradually lowered; great care being exercised to avoid a too rapid change and chilling during or immediately succeeding the bath. For the next twelve weeks the immersion bath

should be at 93° F., followed by a sponge with water of 90° F. These baths should always be given in a warm room (a very hot one is not desirable) and immediately followed by brisk rubbing of the entire body with a soft towel.

At the end of the first twenty-four weeks it is well to impregnate the water with sea salt on account of its invigorating properties. At the end of the sixth month the immersion bath is reduced to 90° F. and the aftersponging with water at 88° F. These temperatures are maintained until the infant is one year old, when a further reduction (gradually accomplished) of five degrees in the immersion bath and eight in the sponging water is to be effected. Below these points—85° and 80° F.—we should not go until the beginning of the third year, when the gradual reduction is continued until the fifth year, when the immersion bath at 80° and sponging at 75° F. will not occasion any discomfort.

	Immer- sion	Sponge.
One to twelve weeks	95	..
Twelve to twenty-four weeks	93	90
Six to twelve months	90	88
Twelve to eighteen months	88	86
Eighteen to twenty-four months	87	83
Twenty-four to thirty-six months	85	80
Three to four years	83	78
Four to ten years	80	75

These cold baths will soon become very agreeable, for the hot bath is more pleasant than the cold only when through constant usage, to the exclusion of the cold, the body is accustomed to it. Let the cold bath become an every-day procedure, and it will be equally pleasant, if not more so, than the hot.

From time immemorial we have been told that cold baths are injurious in infancy and childhood; but after witnessing their effects in a great number of cases I am firmly convinced that, when they are given in an intelligent way, they are of great value, and some day will be considered an absolutely necessary part of the régime of infancy.

Neither are they applicable to the strong and healthy alone, but they may be commenced at any period of infancy, be the health what it may, excepting, of course, those rare cases in which a bath of any kind is contraindicated.

Under the influence of the bath *régime* alone the most gratifying results are seen. A weak, irritable infant will wax vigorous, rosy, and full of life and beauty; the normal healthy one will grow stronger, sleep and appetite will improve, and in place of irritability and fretfulness there will be perfect rest and contentment.

This system of bathing will recall many a child from the grave, and the robust constitution gained will enable it to combat, with greatly increased chances of success, the various diseases to which infancy is subject.

As the face is treated, so treat the entire body, and in time the little one will be almost "all face."

With the beginning of the baths gentle exercises should be inaugurated and continued until the dawn of childhood, at which time new and distinct movements are substituted.

At the second or third week daily massage of the entire body, immediately after the bath, and consisting of a thorough rubbing and kneading with oil, should be given.

J. Madison Taylor, of Philadelphia, in speaking of the results obtained by massage of infants, says: "Improvement was almost invariably gratifying, and at times brilliant, even when no ailment existed, but was especially noted in those below par. The beneficial effect was first observed in the skin, which softened notably, becoming clarified and rosy tinted; then fretfulness ceased and sleep came more amply, the bowel action fell back into normal sequences, and presently the muscles grew firm and strong."

The massage is to be supplemented by other light movements, such as

flexing and extending the arms and legs, tumbling, etc.

Every day the infant should be taken into the open air and kept there as long as possible. During the first few years of life it may be kept indoors in very stormy weather, but after this time there should never be such a word as "bad weather."

An out-of-door existence is the most important consideration of all, and without it all the other methods for developing a sound body must fail. The baths and other procedures merely prepare the body for the varying degrees of temperature to which it will be subjected. As well try to learn swimming without entering the water, as to try to harden the body by bathing and then remaining indoors. Neither can one grow strong by exercising fifteen minutes daily and remaining in bed for the balance of the twenty-four hours.

After a course of cool bathing, daily exercising, and moderate heating of the living and sleeping rooms, it will be found that the little one can be taken out in any kind of weather without the least harm resulting. In a short time almost complete immunity from colds will have been gained.

Especially should this rule hold good when the child has once learned to walk. Then it must be allowed to romp to its heart's content, fair weather or foul. If at this time a cold is taken, do not confine it to the house, but permit it to play outdoors as usual. Recovery will be all the more rapid, and at the same time strength will be gained to combat a possible recurrence.

All these questions have a strong bearing upon the development of diseases of the respiratory tract; in that freedom from these diseases depends upon the possession of a healthy body, and anything which diminishes the normal resistance increases the liability to these conditions.

A child raised in this way will need no persuasion to induce it to so continue throughout life; the rules will be persevered in because of the exhilaration they bring, without consideration of utility.

In view of the manifest advantages gained by the use of the cold bath and the great superiority of the "hardened" individual, it is difficult to understand why the great majority

prefer to remain as they are: probably because to the non-hardened individual the warm bath is much more agreeable than the cold; if so, it is only a question of habit, for after the cold has been used for some time it ceases to be unpleasant.

Every person under sixty years can be hardened with comparative ease; with those past this age great care must be exercised."

Surgical.

Under the charge of Sydney R. Hodge, M.R.S.G., L.R.C.P.

SURGICAL TREATMENT OF ASCITES.

Two papers have recently appeared on this subject; one, by Dr. F. J. Smith (*Lancet*, May 5), dealing with the matter generally; and one, by Dr. Cheadle (*Lancet*, April 14), dealing with that form of it due to cirrhosis of the liver. As it is a fairly common symptom out here, notably of enlarged spleen, it will be useful to refer to these two papers and the views they put forth. Dr. Smith's, briefly, is an advocacy of abdominal section in preference to paracentesis whenever there is a necessity to interfere in a surgical way. He supports his contention by four main arguments: 1. That laparotomy is more scientific than paracentesis. 2. That it is safer. 3. That diagnosis, which is often defective, can be made clear; and 4. That cases usually considered incurable have recovered after laparotomy.

We may grant his first contention, though I doubt whether it would reconcile a patient to the more formidable operation to know that it was more scientific. His second point, that it is safer, he scarcely proves to my satisfaction. Dr. Smith, who is one of the pathologists to the large London hospital, and in that capacity has the opportunity of making many hundred post mortem examinations every year, says that while he has never seen death result from a simple exploratory operation, where no attempt was made

to do more, he has several times performed necropsies where fatal acute peritonitis has followed the use of the trocar, even with strict antiseptic precautions. He could find no wound of the intestines, but it is possible that a wound invisible to the naked eye may become infected. He has to acknowledge, however, that in some cases where laparotomy was performed, the "shock of the operation" or the anæsthetic appeared to have had an injurious influence on the disease which was present, and that in some cases of advanced cirrhosis of the liver and of severe *mobus cordis* death seems to have been accelerated. He looks to local anæsthesia to prevent such accidents. I have frequently seen, in the course of a large number of cases of paracentesis, slight evidence of local peritonitis, which has invariably passed away, but I never saw a fatal result from the tapping. On the whole, with due respect to my old fellow-student, my experience would lead me to say that he has seen worse results from abdominal section than I have from paracentesis, and certainly, were I the patient, I should not hesitate one minute as to my choice. There will, this notwithstanding, always remain a small margin of apparently incurable cases in which laparotomy may be used as a last resort.

The paper of Dr. Cheadle is much more convincing. It is to insist on the need and success of repeated tap-

pings; one successful case quoted having been tapped as many as eighteen times. He deprecates wasting time on purging and the use of diuretics, though these may be useful as adjuncts after the tapping. By purgation the onset of diarrhœa is favoured, an onset only too liable to set in of itself and which is difficult to control and often fatal. Diuretics are harmless where the kidneys are sound, injurious when they are diseased, and often futile. Repeated paracentesis with a Southey's trocar, plus the appropriate treatment of the underlying cause of the ascites, is the right course to pursue. One remark he makes is worthy of notice, and that is that in many cases of cirrhosis after the ascites has been cured "the liver remains large and hard," though the patient continues well. I have seen the same thing happen in cases of enlarged spleen, and these cases suggest that pressure is by no means an IMPORTANT factor in the ætiology of the dropsical effusion. I can quite bear out Dr. Cheadle's contention from my own experience, having had marked success ever since the time I made up my mind that many of these cases, apparently hopeless, can be cured by numerous tapplings and appropriate concomitant treatment of the underlying cause.

THE SURGICAL SIGNIFICANCE OF LEUCOCYTOSIS.

The annals of surgery for June contains a good paper on this subject by Theodore Dunham, of New York. After pointing out how various circumstances affect the count, such as age, hæmorrhage, ether narcosis and notably, proteid digestion, he affirms that the greatest service this condition renders to the surgeon is in the diagnosis of acute inflammatory conditions. "In most instances, other influences being excluded, the leucocyte count is a safe guide to the presence of acute suppuration; but in some instances the count is not strikingly

high. In such cases I would emphasize the importance of making two or more counts at intervals to determine whether the tendency is upward or not." He gives an instance of appendicitis where the daily rise, after operation, indicated the formation of pus, and this prognosis proved correct in spite of the fact that neither dressings, temperature, pulse, nor respiration gave any indication of anything wrong. Cabot's dictum in this connexion is worth recalling. He says (2nd edition, p. 190): "A steadily increasing leucocytosis is always a bad sign and should never be disregarded even when other bad symptoms are absent. It is of far more significance than a larger count which does not increase." Cabot has also pointed out that in severe cases of sepsis no leucocytosis is present; the author of the paper we are discussing adds that, in his experience, "this usually happens in patients who are greatly prostrated by the sepsis itself or from some other cause." He goes on to point out that, in such cases, we have a further aid at our disposal in the iodine reaction. "In cases where a progressive suppurative process is present a larger or smaller proportion of the polymorphonuclear neutrophiles stain with iodine. This reaction is not found in normal blood, and is said not to occur in any diseases which could well be confounded with acute abscess." As there is no mention of this even in Cabot's work it may be well to reproduce the author's remarks. "The technique is as follows: Cover-glass smears of the blood are prepared in the usual manner and allowed to dry spontaneously. The staining fluid consists of: iodine, one part; potassium iodide, three parts; water, 100 parts; gum arabic, sufficient to produce a syrup-like consistence. Two or three drops of this are placed on a slide, the cover-glass floated on it, and after a few moments the excess of fluid withdrawn by a bit of filter-paper applied at an edge of the cover-glass. The specimen is then ready for examination by an immersion lens. Air-dried blood

smears retain their susceptibility to iodine for several weeks.

The red corpuscles have a dark yellow colour; in normal blood all of the leucocytes are much lighter than the reds. In the blood of progressive suppurative cases the protoplasm of a certain proportion of the polymorphonuclear neutrophils takes on a reddish-brown colouration. The mode of colouration differs in different leucocytes: in some it is a diffuse stain, in some a granular net-work, while in others the colour is confined to large or small refractive granules, varying in tint from a light pink to a dark red. The intensity of the reaction is said to be closely related to the acuteness of the pus process, being most intense in rapidly progressive streptococcus and staphylococcus phlegmons." To this general rule of the significance of the iodine reaction there are one or two exceptions. It is absent in tubercular abscesses and rare in acute abscesses, which are well walled off; the presence of pneumonia and of grave blood diseases should also be excluded.

The experience of the author leads him to add a few words as to the proper way of managing the Thoma-Zeiss instrument for blood count. "After use, the mixing pipette should be cleaned by drawing up distilled water three times, alcohol three times, and ether three times. Sucking air through will evaporate the last traces of ether and leave the pipette clean. The counting-chamber and cover-glass should be washed with water and polished with a handkerchief. The core may be further cleaned with alcohol, but no alcohol should be used on the slide for fear of injuring the cement. After drawing up the blood and diluting fluid I shake the pipette one hundred times to insure thorough mixing. About a third of the fluid is expelled and the tip of the pipette wiped before placing the drop upon the slide. Slide and cover must be so spotlessly clean that slight pressure will cause iridescence wherever they touch, and this

iridescence should remain when the pressure is removed."

Of course the paper does not pretend to point out all the pitfalls there are in this sort of work; for that we must refer our readers to some standard work, but within the limits he has set himself the writer is very helpful. If one might make one criticism it is that he has scarcely sufficiently emphasized the fact that leucocytosis and leukæmia, though both having in common an increase in the number of white cells, are not the same thing; but not improbably he has taken that knowledge for granted in his readers. He closes with a much needed and sound surgical axiom: "Only he who is best informed AS TO ALL ASPECTS OF THE CASE can give to the count its due place in the diagnosis and prognosis."

TYPHOID SPINE.

In the *Medical Review* for last May there is an abstract of an interesting paper by Lowett and Withington in the *Boston Medical and Surgical Journal* for March 29. "The name typhoid spine was given by Gibney to a condition which sometimes follows typhoid fever. It is characterized by great pain and sensitiveness of part of the spine, and rather closely simulates Pott's disease. Only nine cases have been recorded. They were all much alike, and presented the following characteristics: The patients were young adults (males in all cases). The spinal affection occurred late in the convalescence, or after it had apparently ended, occasionally after the patient had returned to work. It followed an accident or occurred spontaneously, affected the lower dorsal or lumbar region, and was attended by nervous symptoms, such as paresthesia, variation in surface reflexes, etc. Pain was excessive and rigidity of the spinal column was due more to voluntary contraction holding the spine steady than to involuntary muscular spasm as in tuberculous spondylitis. The prog-

nosis is favourable." To these cases the authors add a tenth, which is of special interest in that permanent deformity resulted. This the writers infer was due to a self-limited destructive osteomyelitis. Tubercular disease was excluded on the following grounds: the clinical aspect was not that of ordinary Pott's disease, the muscular rigidity seemed largely voluntary, the pain was excessive, and there was pain referred to the peripheral ends of the nerves. The recovery of good mobility within nine months (as took place in their case) is not characteristic of severe Pott's disease in the adult. As to causation they conclude: "In addition to the massing of typhoid bacilli in the vertebra some local strain or injury is probably factor, such as laborious work undertaken before strength is fully re-established." One case occurred in a blacksmith, who had recommended swinging a heavy hammer, and another began after a fall in skating, subsequent to convalescence.

TREATMENT OF HÆMARTHROSIS OF THE KNEE JOINT.

In the *Glasgow Medical Journal*, Vol. 46, Dr. J. O'Connor writes on the above subject. He points out that the diagnosis of hæmorrhage into the joint is often a guess merely, and that rest, ice-bags, strapping, and blisters frequently produce firm adhesions which may cripple the patient for life. He also deprecates massage and early movement. "In cases of effusion into the knee joint an aspirating needle should be used in order to make a correct diagnosis. If blood is present an incision should immediately be made into the synovial pouch and all blood and clot removed; in case of fracture into the joint the fragments should be examined, and if necessary reduced and fixed. A gauze drain should be inserted for a few days to make certain that no reaccumulation shall take place. When there is no further

danger of this the wound should be closed by "waiting" sutures. When union is sufficiently firm active movement should be encouraged; when this can be painlessly executed then and then only is massage a most useful adjunct in restoring the muscles." He narrates three cases; one a complicated one previously treated on the old methods, where the adoption of these methods was completely successful.

THE PRODUCTION OF LOCAL ANÆSTHESIA IN THE EAR.

An abstract in the *Medical Review* of a paper in the *Lancet* of April 21, by Dr. A. A. Gray, gives some useful information on this subject. The writer states that in acute otitis media no satisfactory local anæsthetic has been found, and attributes this to the fact that the nerve terminations are protected by tissues which resist the penetration of water. He has discovered that this difficulty can be overcome by using as the menstruum a mixture of anilin oil and rectified spirits. "It penetrates rapidly, is miscible to a considerable extent with water and does not destroy the tissues. For experimental purposes a solution of five parts of cocaine hydrochlorate, fifty parts of dilute alcohol, and fifty parts of anilin oil was used. This gives a strength of a little less than five per cent. of cocaine. The subject laid one side of his head upon a table, and about ten drops were dropped into the meatus and allowed to run down on to the membrane. Only a slight sensation of cold in the ear followed. The head was held in this position for from three to five minutes. The excess of solution was then mopped out. On passing a probe down to the membrane the latter was found to be perfectly anæsthetic; the instrument might be drawn across its surface or pushed inwards against it; the sensations of pain and of touch were quite in abeyance, the subject only being able to hear the rubbing noise.

Another class of cases in which this means of producing anaesthesia is useful is that in which there springs from the tympanum a number of granulations having broad pedicles which do not permit of their removal by the snare. In these cases it is of great importance to cleanse and dry the parts very thoroughly before putting in the solution. The drops are then instilled and allowed to remain for a period of from five to fifteen minutes, after which, in most cases, the granulations may

be removed painlessly by scraping with the sharp spoon." In those cases where the membrane is very dense and thick from old sclerotic changes he recommends the following solution: ten parts of cocaine, thirty parts of absolute alcohol, and seventy parts of anilin oil (pure). "This solution penetrates a dense membrane better than does the one containing rectified spirit, but it is not so suitable for general use on account of the burning pain which it may cause in cases of perforation."

Gynecology and Obstetrics.

LEUCORRHOEA, YEAST IN TREATMENT OF.

T. Landau, of Berlin, reports some forty cases of leucorrhœa treated by local applications of yeast. A few cases were not benefited, in a few the discharge was only somewhat diminished; but in a very large percentage a complete cure was accomplished, many of them in cases of chronic gonorrhœal leucorrhœas of long standing, which had resisted other local and general treatment.

Brewers' yeast was used, kept on ice and renewed every three days. Diluted, at the time of using, with beer; $2\frac{1}{2}$ drachms to $1\frac{1}{2}$ ounces were injected into the vagina through the speculum; the vagina was plugged with a cotton tampon, which the patient was instructed to remove the next morning and to take a douche of plain water or salt solution. The treatments were made every two to three days, and continued from one to three weeks; some cases requiring only one application.

No unpleasant after-effects were observed, except severe itching in two cases. This was relieved by adding soda to the douche on the following day.

A summary of personal cases does not show the brilliant results obtained by Landau, but justifies the continued trial of this method of treatment.

Brewers' yeast was used when it could be obtained; when it was not to be had compressed yeast gave

apparently similar clinical results. The compressed yeast was prepared as follows: A quarter of a cake of "Fleischman's" was dissolved in a half-cupful of water mixed with about a teaspoonful of either flour or sugar. E. R. Mitchell (*Women's Med. Jour.*, April, 1900).—*Sajous' Monthly Cyclopædia.*

SOME ASPECTS OF ANTENATAL PATHOLOGY.

Antenatal pathology has advanced lately in the sphere of the prevention of intrauterine death from what may be called natural causes, among which must be included the passage of microbes, toxins, and poisons from mother to fœtus. Nicloux* has shown experimentally that alcohol given to the mother animal and the parturient woman quickly finds its way in startlingly large amounts to the fœtus *in utero*; and Sullivan† has brought out by statistics that habitual inebriates among women give birth to a terribly high percentage of dead or diseased infants. The economic conclusion to which one is enticed is that inebriate mothers do the best thing for their offspring when they commit some offence in the first month of pregnancy, on account of which they are condemned to spend the rest of the period of utero-gestation in prison, for it has been shown that the prison

* *L'Obstétrique*, p. 97, March, 1900.

† *Journ. of Ment. Science*, July, 1899.

baby may, under such circumstances, be born not only living but even healthy! The *vis medicatrix Natura* is at work during intrauterine life, and probably at no time can it achieve more surprisingly beneficent results.

Besides the prevention of the passage of noxious substances from the mother to the fœtus recent researches have shown that the placing of pregnant women in circumstances under which they can rest during the last two months of gestation is a means of ensuring the birth of strong and healthy infants.

For these and other reasons it may be concluded that antenatal pathology has come to be more than a matter of academic interest. Thus far it has been a somewhat neglected branch of obstetrics; in the future it may be an important part of public health.—*Brit. Med. Jour.*

PUERPERIUM, SLIGHT ELEVATIONS OF TEMPERATURE DURING.

Slight elevations of temperature during the puerperium are usually caused by saprophytes which gain access to the uterine cavity.

The saprophytes themselves do not cause fever. It develops only when the outflow of the bacteria-containing secretion is prevented.

The saprophytes which are found in the uterus in cases of slight elevation of temperature are probably identical with the saprophytes of the vagina.

Internal examination is usually a factor in causing slight elevations of temperature only in so far as it causes vaginal wounds, which serve to further the development of the bacteria which are always present.

Slight elevations of temperature occur oftener by half in primiparæ than multiparæ.

Diminishing the duration of the third stage increases the number of slight elevations of temperature.

Long duration of labor, long duration of the expulsive stage, and premature rupture of the membranes

have but little influence in the production of these cases. K. Franz (*Obstetrics*, May, 1900).—*Sajous' Monthly Cyclopaedia*.

PREVENTIVE GYNECOLOGY.

R. R. Smith (*Amer. Jour. Obst.*, xli, 632, May, 1900) summarises the various possibilities of preventive gynecology under the five headings of care of the woman before marriage, during gestation and labour, and during the climacteric, prevention of gonorrhœa and syphilis, and prevention of carcinoma. With regard to the two last named: carcinoma is to be prevented by the repair of all tears of the cervix occurring about middle life, and gonorrhœa and syphilis by the diffusion of a knowledge of the risks run when a woman marries a man of loose habits. The care of the woman before marriage includes the making of a physical examination in all cases of persistent or severe pain at or between menstrual periods and of protracted amenorrhœa without constitutional cause, also when there is menorrhagia without evident cause. At puberty the girl ought to have explained to her by her mother the fundamental facts of her reproductive functions. Care in pregnancy of course includes the examination of the urine. In labour surgical cleanliness is *sine quâ non*: a judicious use of the forceps may be a most useful means of preventing future gynecological mischief. Tears should be repaired. The woman should be examined three months after labour. Minor pelvic surgery is the conservative gynecology of to-day; when this is recognized there will be less major or abdominal surgery.—*Brit. Med. Jour.*

PESSARIES AND UTERINE CANCER.

Morestin (*Bull. et Mém. de la Soc. Anat. de Paris*, March, 1900) reports an instructive case of a patient who underwent a great deal of gynecological treatment within ten years.

When 34 a cystic tumour of the right ovary was removed. She recovered, a hernia developed in the cicatrix, and troublesome bearing-down pains set in. The uterus became slightly prolapsed. A red-rubber ring pessary was introduced, and gave relief, but the patient seemed to neglect all precautions as to cleanliness, and the instrument was not removed for years. For a few months she was troubled with a free sanious vaginal discharge. Morestin found a firm bleeding mass, shaped like the clapper of a bell, in the vagina. This mass was a hypertrophied, cancerous posterior lip of the cervix. It fitted in the aperture of the pessary, which was covered with old deposit. The uterus was the seat of myoma. It was removed by vaginal hysterectomy; *morcellement* was practised. The patient recovered from the operation. The cancer and the myoma were coincidences no doubt; but the prolonged local irritation caus-

ed by the pessary may have been the cause of the malignant disease, and certainly aggravated it when it had developed.—*Brit. Med. Jour.*

OVARIAN TUMOUR IN A GIRL AGED THREE.

Hüttl (*Monats.f. Geburts. u. Gynäk.*, March, 1900) recently reported in a Hungarian paper an abdominal section on a girl aged three suffering from hypogastric pain and swelling for several weeks. An ovarian tumour was discovered on the right side; it was as big as a man's fist, and weighed a quarter of a pound. It was removed; the opposite ovary was healthy. Recovery was rapid. The growth consisted of a serous and a dermoid cyst combined. The remains of the ovary formed a small prominence on the under-surface of the tumour. Dermoid elements are usual in ovarian tumours before pregnancy.—*Brit. Med. Jour.*

Diseases of the Skin.

LOSS OF HAIR.

Treatment.—Three hundred cases of loss of hair have been personally studied. The term "loss of hair" was chosen rather than "alopecia," so that it would be readily understood that baldness was not present in every case. Only about a third of the cases could be followed long enough to draw conclusions in regard to the effects of treatment.

If there is absolute baldness, and the scalp is atrophied and bound down, there is little use in trying to treat the case. All such a patient can do, is to endeavor to stay the evil day by keeping his scalp in as good a condition as possible by hygiene, massage, and applying remedies for the dandruff if it is present. It is possible to stimulate the dying hairs for a time into a stronger growth, but ultimately calvities is inevitable.

Positive results in checking the fall

of hair and increasing its amount have been obtained by using precipitated sulphur, ten per cent., in a good cold cream with or without either salicylic acid, three to five per cent., or extract of jaborandi, a drachm to the ounce. The ointment proposed by Dr. Bronson, composed of ammoniated mercury, twenty grains; calomel, forty grains, in an ounce of vaselin, has also done good service in some cases. In a few cases resorcin in solution and in increasing strength has proved helpful.

Medicated ointments and lotions are useful for overcoming the dandruff. It is believed that there is no permanent cure for that disease. Therefore the patients should have their remedies constantly at hand so as to apply them as soon as the dandruff reappears.

For stimulating the growth of the hair there is only one remedy worthy of the name, and that is massage.

For this a skilled professional is best, but a great deal can be done by the patient's pinching up the scalp between the ends of the extended fingers of both hands for five minutes night and morning. Massage must not be used until the dandruff is checked.

For the ordinary cure of loss of hair with dandruff, personal treatment is as follows: First, the general condition of the patient is attended to. Then he is given one of the sulphur preparations and is directed to use it once a day for three days and then to wash the hair and scalp. Immediately after the hair is dried the ointment is again applied and repeated every other day for ten days. The scalp is again washed and the ointment continued twice or three times a week until the dandruff is controlled; the washing being repeated from time to time. When the scalp is in good condition massage is ordered. If the patient will not use an ointment, a lotion of resorcin, at first three- and afterward five- to ten-per-cent. strength is ordered, to be used morning and night. For a case of loss of hair without any apparent trouble with the scalp, reliance is placed mostly upon massage; the sulphur preparation being used occasionally to keep the scalp a little oily. G. T. Jackson (*Med. Record*).—*Sajous' Monthly Cyclopaedia*.

LEUCODERMA.

The only possible difficulty in the diagnosis of leucoderma is its distinction from a chloasma or other localized excessive deposition of pigment. It might seem in certain cases that the whiter areas are the natural color of the patient's skin, and the darker ones the abnormal tissue. The question is readily settled by the shape of the spots. In both affections the spots are more or less circular or rounded, so that the convexly bordered margin marks the

abnormal and the concavely bordered area the healthy skin. Some few cases of leucoderma occur in conditions of general ill health; but the majority of them are perfectly well.

This affection is commoner in the colored than in the white race; and the so-called "leopard boys" exhibited in the dime museum are examples of the disease. It chances also to be common in certain South and Central American countries where leprosy is endemic; and here it is popularly confounded with the macular form of that affection, and the patients are regarded as lepers. There is no basis at all for this idea. Leucoderma is a pure pigment atrophy, entirely unassociated with any general disease.

Nothing can be done therapeutically for the affection. Improvement of the general nutrition by exercise, diet, baths, tonics, etc., sometimes retards the spread of the affection. But in the majority of cases it is either stationary or progressive. The spots remain as permanent achromias, or spread until the entire skin is more or less dechromatized. W. S. Gottheil (*Inter. Med. Mag.*, April, 1900).—*Sajous' Monthly Cyclopaedia*.

PLASTER OF OXIDE OF ZINC.

The *Journal des Praticiens* of February 21, 1900, states that Unna suggests the following formula:—

Linseed oil,	5 drachms;
Lime water,	5 "
Oxide of zinc,	1 ounce;
Prepared chalk,	1 "

This makes a paste in which various other drugs may be employed for diseased conditions of the skin. The following substances, however, should not be mixed with it: acetic acid, salicylic acid, pyrogallol, phenol, resorcin, or ichthyol. On the other hand, the following medicaments may be added to this paste for application in certain cases of skin diseases with advantage: Corrosive sublimate, up

to the strength of ten per cent; chrysarobin, ten per cent; balsam of Peru, ten per cent; oil of cade, five per cent; tar, ten per cent; extract of cannabis indica, five per cent; extract of opium, six per cent; menthol, two per cent; oil of almonds, ten per cent; and cocaine, from one-half to one per cent.—*Therapeutic Gazette*.

BLEPHARITIS AND SCABIES.

Scabies of the palpebral fissure is not a commonly-recognized condition. Raehlmann, however, describes this form of scabies (*Journ. de Méd.*, February 10th, 1900). The acarus seems to affect the ciliary follicles and may thus escape detection. There is considerable blepharitis, accompanied by itching and tingling along the free border of the eyelids. The eyelashes fall out. There is hyperæmia of the inner marginal zone and of the neighbouring skin. A honey-like secretion covers the border of the eyelids and adheres specially to the point of emergence of the eyelids. There is often a considerable degree of conjunctivitis. The treatment recommended by Raehlmann consists in applying an ointment of Peruvian balsam, two parts; lanoline, six parts; or Peruvian balsam, two parts; lanoline four parts; oil of sweet almonds,

two parts. This must be applied every day and left on for about half an hour. The condition may be cured in four or five days, but the applications ought to be continued for some time.—*Brit. Med. Jour.*

PRESCRIPTION FOR SEBORRHEIC ECZEMA.

The following recipe is given in the *Journal de Médecine de Paris* of December 17, 1899:—

Chloroform and glycerin, of each 2 ounces;
Chrysarobin, 30 grains;
Ichthyol, 30 grains;
Salicylic acid, 30 grains.

The mixture is to be applied to the part affected every day or every other day, to be followed by an application of olive oil or cold cream to prevent undue irritation of the skin. Care must be taken that the chrysarobin does not irritate the skin too greatly. If it does the quantity must be decreased.

Another recipe which is said to be of value for dry, scaly skin diseases is the following:—

Ichthyol, 1-2 grains;
Chrysarobin, 1-2 „
Vaselin, 1½ ounces.

To this is to be added a little extract of violet to cover the odor of the ichthyol.—*Therapeutic Gazette*.

Eye Diseases.

Under the charge of E. Ruel Jellison, M.D.

I.—CATARACT EXTRACTION IN MON-OCULAR PATIENTS (*Bert. Med. Woch. Mendel*.) In judging the results of extraction the consideration of the material is of the greatest importance. It is quite another thing to operate healthy farmers and villagers in a small city than to undertake a like number of cases in a large city.

Among the last named, complications occur more frequently, as excessive myopia in senile cataract, and diabetes, which is four or five times

as frequent in Berlin as in Heidelberg. In a great city like Berlin the patients are collected who have the misfortune to complain of the loss of one eye from an operation.

The operator who wishes to develop a practice among those who have already lost one eye by extraction, must first make a careful examination of the whole system as well as the eye with the view to discover the injurious factor which has caused the unlucky result to the first eye that he

may be in position to avoid the same unhappy result in the second eye.

In the last eight years nine patients were successfully operated for senile cataract in Prof. Hirschberg's ophthalmic hospital, who came first after the loss of one eye from an earlier attempt at extraction. The majority were operated by able men; two in Berlin and seven elsewhere. These do not include congenital or early developed microphthalmos or an aphthalmos. Some dangers can only, as in cataracta nigra, be discovered at the time of operation. When the uncommonly large size of this variety is learned from the first operation this danger is easily avoided by a larger incision.

Frequently the unsuccessful course of the case is due to the destruction of the asepsis of the wound.

One cannot simply remark as certain books do that we must be especially careful with the second eye, for in every extraction the first condition is that the surgeon brings nothing septic to the wound.

The danger lies especially in the peculiar constitution of the patient. Although the general condition does not require the extensive treatment recommended by the ancients, still in some cases it is necessary to use the greatest care to build up the system. By far the most frequent as well as the most dangerous factor is the injurious condition of the ocular annexa, whether the conjunctiva or the lacrymal apparatus.

These dangers, which Prof. Hirschberg had already, in 1896 in his work on "The Treatment of Unclean Cataract," shown, must be most carefully studied that when cure is impossible they may be so diminished that the wound may be successfully kept clean during the healing process.

A careful treatment of the nose, either alone or with the assistance of specialists, is required, perhaps, for months. When the nose cannot be restored to its normal condition the closure of the puncta lacrymalia with the electric cautery is essential to

avoid the flow of pus into the wound. The inflammation of the lids must be treated with cold compresses and ointments as

R Hydrog. oxid. flav. ...	0.05
Vas alb	10.00

Trachoma must be treated with 1 % argent. nit. sol. for a long time, or 1 % iodine sol. in alboline.

In regard to the operation it is contraindicated, from the great unrest and anxiety of a patient who has already lost one eye, to attempt the simple extraction upon the second. There is too much danger that prolapse of the iris will occur from excitement to risk an operation without iridectomy. The extraction with iridectomy which has developed from Von Graefe's method is also contraindicated, because the iridectomy under cocain and holocain is not devoid of pain, and all causes for excitement and nervousness must be avoided. Chloroform narcosis must also be considered if it does not interfere with the asepsis of the operation. At times, it is absolutely necessary. If the preparatory iridectomy shows that the patient, in spite of previous training cannot control himself, it cannot be expected that he will preserve sufficient calmness during the extraction. As we are dealing with his only eye, chloroform is indicated.

Among our nine cases, narcosis was employed once.

The patient's pain can be reduced to a minimum by performing a preparatory iridectomy and three weeks later extracting the lens.

Following these general principles, we have operated nine cases during the last eight years and achieved a satisfactory result in every case.

One case was operated the second time a year later.

II.—THE RESULTS FOLLOWING THE EXTIRPATION OF THE SUPERIOR CERVICAL GANGLION IN YOUNG ANIMALS (Graefe's Arch für Ophthal. Hertel).

After extirpation of the superior cervical ganglion there occurred a

marked dilatation of the ocular vessels, which, however, disappeared generally in twenty-four hours, at the most continuing from two to three days. The accompanying miosis reaches its maximum in about one hour. The miosis is not complete, as there is still some reaction to light. The pupil is somewhat dilated at the end of twenty-four hours, but a marked difference is still observable when compared to the other eye. For five days a gradually increasing sinking of the upper lid takes place.

The globe appears smaller, but from measurements is found to retain its normal size; the change arising from a sinking in of the eye due to absorption of the orbital fat. Hypotonia follows quickly, being most marked in forty-five to sixty minutes. The return to normal requires at the latest but five days. The hypotonia is coincident with the vascular dilatation and the miosis. With vascular dilatation the blood pressure and intraocular secretion is diminished and the miosis facilitates excretion and absorption.

The ciliary ganglion shows no change, and probably does not belong, in rabbits, to the sympathetic. The neighboring ganglia described by Peschel were not examined.

III.—THE RELATIONS BETWEEN THE SUPERIOR CERVICAL SYMPATHETIC GANGLION AND THE BLOOD VESSELS OF THE HEAD. (Langendorff.) Upon the basis of a series of experiments, especially on cats, the author proved that the miosis narrowing of the palpebral fissure and the sunken bulb, caused by excision of the cervical sympathetic, can con-

tinue for long periods. After removal of the superior sympathetic ganglion the paralysis of the sympathetic occurs at once, as shown by the marked miosis. This, however, gradually disappears, and even mydriasis may occur. This reversal manifests itself in all cases where after many days or weeks the animal is narcotized or subjected to other irritations; perhaps dyspnoea would have the same effect. If the sympathetic is removed from one side and the ganglion from the other in the majority of the cases, with or without narcosis, there is more miosis, ptosis, bulbar retraction, and vascular dilation on the ganglion side than on the nerve side as an immediate result. But in a few hours both sides become the same, but after some days the larger pupil and palpebral fissure are on the ganglion side. The vascular dilatation is also less on the ganglion side.

A much greater difference is noticeable during narcosis or irritation.

IV.—EXTIRPATION OF THE SUPERIOR CERVICAL GANGLION IN GLAUCOMA (Mohr.) The author reported three cases in which the superior ganglion was excised for glaucoma. In all the cases there was miosis and hypotonia. There was an increase in size in the visual field; mild ptosis occurred once. Parasthesia of the right side of the head and motor disturbances of the right arm were noticed in one case. The time is too short to give an authoritative decision regarding the therapeutic uses of excision of the superior cervical ganglion in glaucoma.

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Editorial.

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THE SITUATION IN THE NORTH.

Since our last issue went to press the eyes of the whole civilized world have been turned towards North China, and hearts everywhere have been sick with anxiety for the safety of friends and acquaintances shut up in Peking, Pao-ting-fu, Tai-yuen-fu, and other places, or traveling through hostile regions, enduring such treatment as has not fallen to the lot of Christians since the days of the Spanish inquisition. Throughout the five northern provinces of Manchuria, Chihli, Shantung, Honan, and Shansi, there has been a veritable reign of terror; every foreigner in the interior being driven to the coast or killed in cold blood, while the poor native Christians have been persecuted everywhere, and in not a few instances have sealed their testimony with their lives; and from Central and Southern China come reports of sporadic outbreaks of violence and persecution which indicate a state of great unrest throughout China.

The intense anxiety in regard to Peking was relieved by the joyful news of the relief of that city on August 14th and 15th, together with the most gratifying intelligence that the beleaguered ones had suffered in health far less than everyone had feared would be the case.

But as to Pao-ting-fu our worst fears have been realized, and there is no room to doubt that on June 30th and July 1st all the foreigners in that city were brutally murdered, while the reports from Tai-yuen-fu are equally bad, and lead us to fear that not only those in the city itself have suffered martyrdom, but that many others (some say fifty or sixty) in other parts of the province have been killed.

Burning and looting of mission property has been very general in the above five provinces; Shantung apparently having suffered less in

this respect than the others, owing to the vigor of the present governor, Yuan Shih-kai. In these outrages medical men and women, and hospitals and dispensaries have, as usual, suffered quite as much or more than others, the fact of their being so largely benevolent institutions being no safeguard to them in times of popular disturbance. Reliable information in regard to the amount of destruction is not easy to obtain, owing to the fact that much of the damage to property was done after those in charge had been compelled to flee, and so reliance has to be placed upon native reports alone, and in some cases even this source of information is lacking. The following, however, is, as far as has been learned, the situation of affairs in North China.

Manchuria. In another column will be found a most interesting account by Dr. Christie of the rise of the Boxer movement in the city of Moukden, and of the destruction of his own and the woman's hospital there under the care of Dr. Horner, both belonging to the Mission of the United Presbyterian Church of Scotland. Dr. Christie's hospital was the largest in Manchuria and well known from its many years of efficient benevolent work. Indeed so sure were some of the natives that it would escape destruction, even if other mission property were to be destroyed, that it is said they stored their goods within its walls, only to find it the very center of attack.

In Liao-yang, Dr. Westwater's hospital was also among the first places burned; Dr. Aitken's woman's hospital being burned at the same time. Dr. Learmonth's hospital in Kuang-ning, upon which £600 had lately been expended, was burned July 1st.

In Chin-chow, Dr. Brander's hospital was destroyed about July 5th. Dr. Gordon's hospital at Kuan-ch'êng-tsi is reported destroyed, as is also the case with Dr. Greig's at Kirin.

The present whereabouts of the Manchurian physicians, so far as known, will be found in the columns of Personal Notes.

Chihli. Little detailed information is obtainable from the interior stations of Chihli, but it is presumed that everything has been destroyed. Dr. Hopkins' hospital at Tsun-hua has certainly been burned, as also Dr. MacFarlane's hospital in Hsiao-chan. The hospitals inside the walls of Peking are also gone. This includes those belonging to the London Mission, American Methodist, Anglican Mission, and American Presbyterian. In Pao-ting-fu of course both hospitals, belonging to the American Board Mission and the American Presbyterian Mission, have been destroyed and Drs. Taylor and Hodge, of the latter Mission, have lost their lives.

Shantung.

In this province no one has lost his life, nor have there been any special sufferings among those escaping from the interior stations with the exception of the party led by Rev. Frank Chalfant in their escape from Wei-hsien. Mr. Chalfant, after keeping the mob at bay for some hours, was finally compelled to fly at dusk in company with Misses Boughton and Hawes on foot, reaching a place occupied by Germans, some thirty *li* distant, about midnight, and after various adventures reached Tsing-tau in safety. Before the party got out of sight of the Mission compound they saw various buildings in flames; two of these destroyed being the men's and women's hospitals under the charge of Drs. Faries and Parks respectively. Dr. Faries was temporarily absent from the station, and Dr. Parks had left two days previously. It was subsequently learned that all the mission buildings were completely destroyed.

At Lin-ching-chow the hospital has also been destroyed, as has been Dr. Jones' hospital in Lao-ling, but aside from these three no other hospitals in Shantung have gone. The following have, however, been looted:—

The A. P. M. hospital in	Chi-nan-fu,	under the care of	Dr. Lewis.
The S. B. C.	„ „	Ping-tu.	
The E. B. M.	„ „	Ching-chow-fu,	„ „ „ „ Dr. Watson.
The A. P. M.	„ „	I-chow-fu	„ „ „ „ Dr. Johnson.

It is also greatly feared that the new hospital at Chou-ping, under Dr. Paterson's and Dr. Smyth's care, lately erected outside the city walls at a cost of £1,200, will eventually be destroyed.

Honan.

In this province the two hospitals belonging to the Canadian Presbyterian Mission in Chu-wang and Chang-teh-fu respectively, and under the care of Dr. McClure in the former place and Dr. Menzies in the latter (Dr. Leslie was temporarily in charge at Chang-teh-fu while Dr. Menzies was engaged in building his house), were both either destroyed or looted, but everybody escaped with their lives. One party, however, in which Dr. Leslie was, had a terrible experience, and Dr. Leslie was badly wounded. An account of this party's trip, kindly furnished by Rev. J. Griffith, one of the participants, will be found in another part of the JOURNAL. No other news from this province has thus far come to hand.

Shansi.

No authentic news is at hand of the experiences of the hospitals in this province, but it is supposed that everything has been swept away. The fearful accounts which have appeared in the daily press of the journey of the Cooper party out of Shansi,

during which five out of nineteen were killed or died on the road, make us fear the worst for all the rest in the province.

WHY MEDICAL MISSIONARIES ARE IN CHINA?

In the *New York Medical Journal* for July 21, 1900, appear the following comments on the position taken by the *London Lancet* on the subject of medical missions in China:—

“The *Lancet* for June 30th makes the following trenchant comment in an editorial apropos of the Chinese situation. After naming the Hongkong and Tientsin schools, the only attempts in China at systematic teaching of modern medicine and surgery, which with some little ambulance work constitute all the medical training of the country, save the barbarous mummeries, of which specimens are given, practised by the native physicians, the *Lancet* continues: The medical missionaries from Great Britain and the United States of America have done a great deal of excellent hospital work in China; but it is perhaps unfortunate that the medical work has been accompanied in almost every instance by religious proselytizing. There seems little reason to doubt the fact that the progress of medicine and, what is still more important, the progress of general education and science and even of civilization, have been thwarted by the fact that the students are in most instances tinged with conversion to a new religion. The young Chinese trained in medicine are almost all Christians, and the fact is deterrent to the advance of medical science among the Chinese. We believe that were science to be taught to the Chinese in a purely secular way Christianity might follow, but it seems impossible to civilize the Chinese by means of Christianity. The Japanese have become civilized irrespective of Christianity. Encourage secular Western education, and especially medical science in China, send Chinamen thus trained into every centre and town of China, and a heaven will be introduced and a diffusion of knowledge spread through the length and breadth of China which will in the near future bring many good things in its train—among others, we truly believe, a considerable conversion of Chinamen to Christianity. We believe the *Lancet's* principles to be sound, but it is a pity that they were not worked upon long ago. The present condition of things seem likely to defer indefinitely the possibility of their inauguration.”

It is one of the encouraging signs of the times that a much broader and deeper interest is of late months being taken in the work of medical missions, not only by religious papers but by medical journals. Since the Ecumenical Conference on Missions in New York city in April appreciative notices have appeared in a number of the leading medical publications, notably in the *New York Medical Journal* and the *Philadelphia Medical Journal*; the latter going so far as to advocate the sending out of medical men by the various medical societies for work in foreign lands as a purely philanthropic measure. We rejoice in all such evidences of sympathetic interest in our work, and we are more than glad to welcome candid criticism of the work of medical missions in general and of any particular methods in detail. The writer in the

Lancet seems to believe that if medical teaching had been carried on in China entirely on a secular basis that not only would more success have attended it in itself but that the medical graduates would have carried more influence with the people generally. It is to be feared that the writer does not understand the situation of affairs in China, especially as regards the advancement of the people in knowledge of Western sciences, almost a prerequisite to the study of foreign medicine. It is undoubtedly the experience of all those who have attempted to do any teaching of medicine in China that the principal difficulty is to find young men who have been sufficiently trained in Western studies to be able to go on advantageously with the study of medicine. There is not so much lack of candidates for medical classes as lack of suitable ones. How this difficulty would have been obviated by having the schools on a purely secular basis, does not seem clear. Again practically all the training in sciences in China until within a very recent period has been done in mission schools, so that those who have been prepared to study medicine have already been under Christian influence before entering upon their medical studies, and in many cases have joined the Christian church previously. This being the case, those trained in purely secular schools would have been drawn from mission institutions, unless such schools started out to train boys from the very foundation in science.

After the regeneration, which we all hope is about beginning in China, there may in the course of years be room for such schools as the *Lancet* writer advocates, but up to the present they have had no chance of success. When that time comes the medical missionary body in China will give such schools a warm welcome, while at the same time using its utmost endeavor to send young men to such schools thoroughly grounded, before going, in the principles and practice of the Christian religion. The attitude of the writers in the *Lancet* and the *New York Medical Journal*, however, opens up the far broader question, For what purpose are medical missionaries in China? Evidently these writers think that better and more far-reaching work might be done if entirely disassociated from religious efforts. We would, however, answer that the prime object for which we are in China is to propagate the Christian religion and make it a power in the hearts and lives of these people. Much as we believe in the medical work for itself very few of us would be willing to endure the isolation and the expatriation for it alone. Let medical men who are willing to come out here from pure love of their profession and from a wish to advance medical science among the

Chinese come, and we can assure them of a hearty welcome from the medical missionaries already on the ground, provided always that they are men of upright moral lives. Not only so, but there would be no difficulty in all probability in so modifying the by-laws of our Association as to admit them to full membership therein. To us who are already on the ground, however the chief need of China to-day seems to be not Western medical science, nor any other foreign importation so much as a thorough leavening with the principles of Christ and a working out of those principles in the daily life of the people. To attempt to civilize the Chinese first and Christianize them afterwards, as the writer in the *Lancet* seems to think would be the proper course to pursue, would be putting the lower object before the higher. Western civilization, without the influence of Christianity, would be of doubtful benefit to the Chinese.

The *Lancet* instances the case of Japan. Does the editor mean to claim that Japan has not been influenced in her development by the Christian teaching which has been carried on so largely during the past thirty or forty years? If so how does he account for the fact that the presiding officer of her lower house of Parliament, as well as some of the most influential members of that body, are members of the Christian church? It can scarcely be gainsaid that the most beneficent and humanizing fruits of modern civilization are the direct result of following the teachings of Christ, so that no nation can adopt that civilization without at the same time becoming in a sense Christian, at least so far as outward appearances go. But what we desire is not so much the outward veneer of civilization as the thorough renovation of the moral life of the people which can come only from a sincere belief in and following of Christ. We are confident that civilization will follow Christianity, but we are not at all sure that the reverse would be the case. For this reason we are here first and foremost to evangelize this people, and secondly to give them as quickly as possible all the benefits of modern medicine and civilization.

THE PLAGUE BACILLUS: ITS EASY DESTRUCTIBILITY.

The freedom from plague in North China at the present moment (August 17th) is undoubtedly due to the ease with which the bacillus of the disease may be destroyed and its inability to survive under adverse circumstances. Dr. Walter Wyman, in a monograph on the bubonic

plague presented to the treasury department of the United States, quoting from the report of the German plague commission, says: "The longest time that infected material, as lint, wadding, earth, etc., remained active was eight days. In ordinary drinking water the bacilli die in three days. *In direct sunlight the bacilli are killed in three to four hours.*"

Quoting from Bowhill he also says: "The bacilli are killed by drying at ordinary room temperatures in four days."

Again, "the report of the Imperial German Plague Commission shows that the viability of the plague bacillus outside of the human body is very short, and that its virulence is rapidly lost under conditions of heat, light, exposure to sun and air, etc.

"This latter finding is directly in accord with every-day laboratory experience, where the greatest difficulty is found in keeping cultures of the plague bacillus in a virulent condition. Under ordinary conditions of laboratory growth, in the presence of uniform temperature, on favorable nutrient media, and kept from the influence of strong light, a culture of the plague bacillus virulent to rabbits will in two or three days so deteriorate that it is no longer pathogenic for the very susceptible mouse.

"Passage through the bodies of animals, repeated at short intervals, seems to be necessary to preserve the virulence of the bacillus. These conditions removed, its viability is short, and it either perishes altogether or becomes a purely saprophytic organism."

There was great anxiety last autumn about the probable recrudescence of the plague in Newchwang and its spread over North China this year, but so far there have been no cases of the disease in the north.

Dr. Daly writes from Newchwang that the last case in that port was on December 7th of last year. The three or four months of freezing weather, in the north, together with the long hours of sunshine during the winter and spring, added to the efforts of the sanitary commission in Newchwang, seem to have been sufficient to kill off all the germs of the terrible disease, a consummation for which we cannot be too grateful to a kind providence. If to the fearful miseries of the war in the north had been added the ravages of such a pestilence as has decimated parts of India the condition of North China would have been most pitiable.

OPERATION ON UNRIPE CATARACT AND TREATMENT
OF TRACHOMA.

Probably the majority of the readers of the JOURNAL, who have had some experience in the treatment of diseases of the eye in China, will agree with what Dr. Hodge says in the present number in regard to the advisability of early operation in cases of cataract. The old idea of waiting until the whole lens had become cataractous so that it could be delivered from its capsule entire, without danger of leaving any cortical substance behind, is deservedly becoming a thing of the past. It has always seemed to the writer an illogical position to take that in senile cataract no operation should be undertaken until complete ripening of the lens had taken place for fear of some of the cortical substance being scraped off and left behind, whereas in juvenile cataract we do not hesitate to needle the lens and allow it to absorb aqueous humor and swell up with little fear of the pressure doing harm. Why we should condemn a patient to remain blind for an indefinite period, sometimes for years, waiting for the slow ripening of his cataracts, because of an ill-defined fear of harm coming from an early operation when such an operation would virtually add to the length as well as comfort of his life, is more than the writer can understand.

Here in China especially it is desirable to do early operations; certainly as soon as the patient becomes blind in both eyes, without waiting for complete ripening, because delay often means the loss of the patient who, becoming discouraged through being told to wait an indefinite time, goes away never to return to the physician, or to return when the cataract is over-ripe and the success of the operation has been imperilled. It is the experience of the writer that eye patients who are told to go away and wait six months or a year very seldom return, whereas those who are taken when they come, while they themselves are in the mood for operation, not only are benefited themselves but not infrequently send others for treatment. An entirely safe rule to work by would seem to be to operate as soon as the patient becomes unable to see sufficiently to make his way about alone. As long as one eye remains well, or is so little affected as not to compel the patient to have some one lead him around, there is sufficient risk of inflammation of the eye to be operated upon and consequent sympathetic inflammation of the sound eye to deter one from operating, but as soon as the patient becomes helpless and a consequent burden to his family, operation would seem to be not only justifiable but advisable.

When we come to consider the treatment of *granular conjunctivitis*, and more especially Dr. Hodge's rule never to undertake the treatment of any case of *trachoma* unless the patient promises to remain in hospital for six weeks, the JOURNAL has to demur most vigorously. While no doubt residence in hospital is desirable, still in the vast majority of cases it is impossible to get the patients to consent to such a prolonged absence from home, nor is it necessary. The writer has treated scores of such cases as out-patients with the happiest results, and he would consider it putting an unnecessary burden upon women, for instance, who have household duties to perform to require them to loaf for six weeks in hospital, leaving their homes uncared for, when by daily attendance at the out-patient department practically the same results may be secured.

Dr. Hodge's fondness for *lapis divinus* is undoubtedly borne out by the experience of many of us in China, in so far at least as the beneficial effect is due to the copper sulphate which it contains. For many years we have used pure sulphate of copper in the treatment of trachomatous lids, rubbing the pure crystal lightly over the affected surface and washing the excess off immediately with water. In severe cases improvement is sometimes delayed for several days, but when it begins it goes on apace; the decrease in the granulations from day to day being most marked. It is very seldom indeed that a case is met with which resists treatment with the pure crystal of "blue stone." It has been our experience that patients are very willing to come to the dispensary for the daily application, which in the first days of treatment is all that is necessary. As improvement goes on and the granulations fade away they are usually told to come every other day or once in three days until cure is complete. In a country where granular lids are such a very common complaint it seems to us that we should make every effort to give relief to every one who comes under our care, even though at times we may be disappointed by having our patients cease coming for treatment just when they are showing improvement. Certainly if we treat only those cases of trachoma which consent to come into hospital we shall miss many opportunities to benefit a very needy and worthy class.

WHAT BECOMES OF OUR MEDICAL GRADUATES?

A very interesting paper might be written for the next medical conference on the question "What becomes of the men trained from time to time by the physicians in China?" How many remain in the service of the various missions under which they are trained, and how

many go into private practice? Again, of those going into private practice how many stick to their profession and are able to make a fair living by it? And last, but most important of all, what is their influence in a spiritual way; good, bad, or indifferent? Those of us who have spent a considerable amount of time in the training of medical students would be very much interested to know the experience of others and to compare notes with a view to forming some idea, whether the amount of time necessary for properly training such students is well spent or not. In itself it is work which carries with it its own feeling of satisfaction, derived largely no doubt from the hope that one is multiplying himself and so planning that he will leave behind him, when he is called away, a body of young men (or women, as the case may be) who will, in a measure, carry on his work. In many places of course such teaching work has not been in operation long enough to have had a fair trial, or so that reliable conclusions can be drawn from the experience gained, but from the record of such teaching as has been carried on in Canton for probably thirty years, if it were possible to find out the whereabouts of those who have gone through the course, together with their personal history, much might be learned as to the results to be expected from such work. It is to be hoped that Dr. Kerr will take pains before the meeting of the next conference to gather together such information for the benefit of the younger men and women among us. Nor should this labor all be put upon Dr. Kerr alone. It would be well if all of us who have had some years of such work would gather up the results and bring them to the meeting.

* * * * *

Owing to the general upsetting of things by the state of anarchy in the north it may be a wise move to postpone the conference planned for next spring in Shanghai until some future date, when the country will be in a more settled state and the many missionaries who have either already gone home or are planning to go, shall have returned to China. If a medical conference is held next spring there will, it is to be feared, be a very small attendance of physicians from the provinces in the north, and in so far it will not accomplish the results which it should.

* * * * *

An incidental advantage of the postponement of the meeting of the Medical Missionary Association would be the additional time

allowed the committee on Nomenclature to complete its work. There seems no present prospect of the committee being ready by next spring to report even on the foundation branches of *anatomy, physiology, chemistry, and materia medica*, not to speak of the advanced subjects of *surgery*, etc. As the JOURNAL has pointed out in previous issues there is no more important matter now before the Association than the settling of this nomenclature business, and if the meeting takes place next year, and it still remains unfinished, a great injury will be done to the cause of medical education in China. Everything in the way of medical text-books waits for this authoritative list of terms. It was hoped that a meeting of the committee might be arranged for this past summer, but circumstances were not favorable, and it had to be given up. Until the foundation lists are determined upon it is of course hard to make much progress in work upon the more advanced subjects, so that work is much delayed through inability to secure meetings of the committee. If some wealthy member of the Association wished to expend a few hundred dollars in a way to accomplish the most good in the shortest time he would do well to place it at the disposal of the committee to pay travelling expenses to the necessary meetings.

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Our esteemed contemporary, the *Chinese Recorder*, deserves great credit for its enterprize in publishing in its August issue such a complete list of missionaries who have been in danger and of property destroyed. No doubt the list of those who have suffered great loss or have undergone dreadful tortures in their efforts to escape from the disturbed regions, and in some cases have laid down their lives, will be greatly lengthened when we hear the reports from the outlying provinces, but meantime it is a great satisfaction to know as much as we do. Correspondents will confer a favor, in such times as these, if they will let the editors of the *Recorder, Messenger*, and MEDICAL MISSIONARY JOURNAL have any facts which may come to their knowledge. The MEDICAL JOURNAL especially would beg for early information of the experiences of medical men and women, and of the destruction or looting of hospitals.

* * * * *

Through an oversight the voting papers for officers of the Association were not sent out with the July number, but were afterwards mailed to members. It is to be hoped that there will be a prompt

return of the papers to the secretary, Dr. Stnart. For the benefit of those who have not yet sent in their papers, and who are in doubt as to whom to vote for, it may be said that the name of Dr. Dugald Christie, of Moukden, has been suggested for the office of president of the Association for the ensuing two years. Let there be a full vote for all the various officers. If any one has failed to receive the voting papers he (or she) can readily send in his or her vote by referring to the inside of the first leaf of the JOURNAL, which gives a list of the officers to be voted for. Please do not delay the returns.

OTHERWISE.

Enteric fever is the chief cause of sickness and invaliding amongst British troops in South Africa. The men affected were those who proceeded to the front before being inoculated with Professor Wright's prophylactic. The protective treatment will therefore be afforded a fair trial, as those who have been inoculated are evidently entering a zone where the disease is prevalent.—*Journal of Tropical Medicine.*

A little Boston girl, only three years old, who had had no experience in the matter of broken limbs beyond that afforded by the casualties in her family of dolls, had the misfortune to fall and break her own arm; and, as soon as she discovered what had happened to her, she cried out: "O, mamma, will it drop off?" "No, darling," the mother answered, "I will hold it so that it will not hurt you till the doctor comes, and he will fix it all right." "Well, mamma," the little one said, pressing her lips together and trying to be brave: "Do hold on tight so that the sawdust won't run out."—*Exchange.*

The following is told by the granddaughter of an old lady who lived in one of the southern states, and had been known throughout the neighborhood as one who had a keen sense of the ridiculous. After a long illness her final hour was supposed to have come, and her children and grandchildren gathered around for a last farewell, when suddenly she opened her eyes and, seeing the mournful expression of those about her, remarked with all her old time vigor: "A watched pot never boils."—*Ex.*

Hospital Reports.

The following reports, in addition to those noticed in the July number of the JOURNAL, have been received. It is a matter of great regret that there has been so meager a response to the request for medical statistics. As will be seen the present reports, together with those in the July number, make only thirty-nine in all, whereas there must be at least 100 hospitals and dispensaries in China. So many hospitals have been burned or looted during the recent troubles we shall now never know how much work was done during the past year :—

Location.	Mission.	Physician.	Out-patients.			Country.	Homes.	In-Pat.	Oper.
			New.	Old.	Total.				
Reported in July issue—30 hospitals.....			.....	.....	271,529	4,597	4,436	11,202	8,943
Amoy	A. R. C.	Otte.....	4,596	7,418	12,014	.....	927	1,369	730
Chungking	L. M. S.	Wolfendale	6,961	10,273	17,234	2,030	57	126	987
"	M. E. M.	Hall.....	4,880	14,801	19,681	.....	815	513	536
Chining	A. P. M.	Hill.....	3,269	5,182	8,451	.....	37	89	39
Hangchow	C. M. S.	Kember....	13,718	7,675	21,393	12	168	892	1,961
Hinghwa	C. M. S.	Taylor.....	3,906	1,515	5,421	12	200	1,354	273
Ichowfu	A. P. M.	Johnson....	11,276	7,536	18,812	373	50	15	.....
Jaocheofu	C. I. M.	Judd.....	200	.....	200	.....	30	6	6
Wenchow	U. M. F. C.	Hogg.....	.....	.....	11,001	.....	186	265	131
P'angchuang	A. B. C. F. M.	Porter.....	10,528	4,000	14,528	.....	.....	473	527
Totals, .....			.....	.....	400,264	7,024	6,906	16,304	14,133

Amoy Hospital, Hope Hospital, and Netherlands Woman's Hospital.

These three hospitals are reported upon together by Dr. Otte who, however, rejoices in the hope that before the end of the present year he will be assisted in the woman's work by Dr. Angie B. Myers, who is being sent out by the students of Smith's college.

Dr. Otte says :—

"When a medical missionary hospital becomes a simple charity, it ceases to fulfil its purpose. Nothing has so impressed itself upon my mind during the past year as this fact. And yet I do not think that all fully understand this, nor the splendid possibilities for evangelistic work which all missionary hospitals afford.

Over twelve thousand visits were made to the dispensaries during the year; thirty

hundred and sixty-nine in-patients were treated in the hospital, seven hundred and thirty operations were done; over one hundred and twenty under chloroform. The in-patients remained an average of sixteen days. They came from twenty-four districts (townships), cities and villages innumerable. Some travelled over a hundred miles in order to reach the hospital. What missionary institution or agency affords such magnificent opportunities for bringing a continuous Christian influence to bear upon so many different individuals and convey the gospel into so many homes, spread over such a large area as a hospital located in a place so easily accessible as the port of Amoy?

It has been necessary for us to get along even without an evangelist (not to mention a superintendent) during the whole of the past year. Can anything be more depressing, or take the heart out of one so much as such a state of things? Let the physician and students do all they can to bring a knowledge of God's love into the hearts and lives of the patients, yet on account of the great amount of medical and surgical

and other work to be done, but little time remains for that persistent and continuous effort among the patients which alone leads to an intelligent acceptance of Christ. Even though working under these disadvantages yet souls have been won for the Master. Here and there we hear of men brought into the fold. If this is true when it has been possible to do so little, what, with God's blessing, would the results have been if definite, intelligent teaching had been given the patients in addition to those talks and exhortations twice a day in the chapel by the students and others attached to the hospital."

Medical Teaching.—In addition to the large amount of medical and surgical work done in these Amoy hospitals, a class of eleven students—seven male and four female—is under instruction.

Chungking L. M. S. Hospital. A large part of Dr. Wolfendale's report is devoted to an account of

the opening of his new hospital, which was erected during 1899 at a cost of 5,600 taels. The opening ceremonies were held on December 23rd, 1899. The report says:—

"The new building which has taken about a year to build, is in the form of the letter **H**; the superstructure over the cross part being three stories high with a flag pole on the top; while the two legs which form the main parts of the hospital are each two stories high, with French windows up and down-stairs leading on to capacious verandahs on three sides. The building can easily accommodate eighty patients, while in the third story an isolation ward has been provided to meet possible requirements. The eastern wing of the structure is intended for women patients, while the western building is set apart for men. In addition to all this there is a ward specially adapted for the use of foreigners whose misfortune it may be to fall sick in this far away post. The building itself is of brick and stone, and in point of arrangement is well adapted for the purpose which it has been erected."

All the foreign consuls and a number of Chinese officials were present, and there was a general spirit of congratulation and wishing of every success to the new enterprise. Dr. Wolfendale is to be sincerely congratulated on being so well provided

with facilities for carrying on his already large work, which for some years has evidently been conducted in inconvenient and contracted quarters.

This wellknown and flourishing *Hangchow C. M. S. Hospital.* hospital continues the carrying on of

its good work. In the absence of Dr. Main, who built the hospital nearly twenty years ago, the report is made up by Dr. Kember. Not only are Drs. Main and Kember now connected with the Hangchow hospital, but Dr. Babington has also lately come out to join them. In addition to the regular hospital work an opium refuge, in which 102 patients were treated during the year, and a leper asylum are in active operation, and a medical class is also carried on. Dr. Kember says:—

"With regard to the general hospital work we have had the usual number of in-patients during the year, the usual difficulties of practice in China—broken legs and arms being undone for the patient's own private inspection and satisfaction, to see whether union is or is not taking place, and this even repeated after having been carefully put up; then cases of high fever being regaled with hard pears and water-melons; friends insisting on taking patients home, after extensive operations, in cold, snowy weather, some miles into the country, when a few days' careful nursing and dressing would be all in the sick one's favour; and so on without end. However we do manage to get some grateful, sensible, and successful patients, and these do indeed cheer us and take away much of the disappointments of the former class."

Training of Students.—"During the past year our two assistants, Drs. Liu and Tsang, have been doing this work. The examinations have proved that good work is being done. Unfortunately we had to dismiss one of the number, who has since gone home and is, on his own account, practicing on Western lines."

Pang-chuang Hospital, Shantung, A. B. C. F. M.

This is the twentieth annual report of this medical work, which is carried on in a village of only a few hundred inhabitants in

north-western Shantung. Considering the size of the center where the hospital is located, it is marvelous what a large medical work has been developed. Being in the midst of the region which last autumn was so disturbed by the Boxer troubles in Shantung the work naturally suffered somewhat from this cause, but nevertheless there were over 14,000 attendances at the dispensary, besides nearly 500 patients treated in hospital. So far as heard from the buildings of the Mission still stand, though all the missionaries have been compelled to leave. Dr. Porter in his report speaks of the troublous times through which they passed last autumn, though during all that time apparently the medical work went on much as usual, gives some interesting notes of cases, which lack of space forbids our quoting, and closes his account with the following review of the past twenty years:—

"A Review of Twenty Years.—It is a long way back to the time, twenty years ago, when the dispensary was a small house of three rooms, when the waiting room was under the lovely locust trees in the yard, and when the hospital was a mud house with an earth floor. Since then what a vast multitude have flocked in and passed out! The present equipment, though incomplete, is equal to the large opportunity. We have in the hospital an equipment of about seven thousand dollars in buildings and drugs. The renewed hospital with its brick ward and its neat compounds is most helpful. It would not be unwise if we could remove the hospital in the future to more commodious grounds apart from the Mission compound. But at present that is not desired or required. During these twenty years 190,000 persons have been treated in the dispensary and hospital. More than ten thousand cases have been operated upon. In all this vast multitude of

cases many of the most severe forms of surgical disease have been treated and with a remarkable average of recovery and health. This is not due very much to antiseptic surroundings, but very largely to the new and increasingly useful methods of dealing with disease which the world-wide profession is constantly presenting and approving.

"It only remains to be thankful that such a measure of opportunity has been given. To Dr. Peck, who through nearly fifteen of these eventful years has done so much, the Chinese are most sincerely grateful, and they will welcome him back to this useful and engrossing service with great interest. We have had a small staff of only five or six men who have been under training. The hope that there might be developed a medical school which would prove of value to many young students and to multitudes of the afflicted Chinese has not been fulfilled in any measure. The next score of years, whatever may be the outcome of the present troubles in China, will undoubtedly bring forward many young men to take up among their own people the work for which so vast a foundation has been laid in China.

"It was said of Dr. Peter Parker that his lancet had opened China at the south. It is in a measure true still and will be for a decade or more. For there is a timidity and fear of the unseen which is appalling, wholly beyond our estimate or conception. It is physical, medicinal, and spiritual truth which is to make the Chinese free from all the bitter distress and bondage of their lives. Our hospital has been the source of intellectual awakening and mental progress and spiritual culture to many hundreds if not thousands. We see in all this the sign of His blessing and reign who came to take and to bear the suffering of men."

The Disturbances in the North.

THE BOXER MOVEMENT IN MANCHURIA.

By DR. DUGALD CHRISTIE, of *Moukden*.

The Boxer movement in Manchuria developed with such extraordinary rapidity that it is difficult even now to realize all that has happened.

Up to the middle of June things were quite peaceful in Moukden, and the Boxers were unheard of. At no time in the history of our Mission did the work go on with more satisfactory indications of progress. The people were always friendly; not a few of the officials were in entire sympathy with our medical work, and never before did so many show a practical interest by subscribing towards its support. Of this I had a most gratifying proof a little before leaving Moukden. On May 29th, about sixty merchants, most of them Christians, met in our waiting-room to consider the question of supporting beds in the hospital. Each of them decided to subscribe a certain amount annually for this purpose, and 920 *tiaos* were collected on the spot as a first instalment.

On the 20th of June the men's and women's hospitals were full, with about 140 *in-patients*; and the number of *out-patients* was larger than in any previous year. Never before was the gospel listened to with greater interest, and the work in every department was full of hope. Suddenly dark rumours of the doings of the Boxers in Tientsin and other places reached Moukden. In a day to two "*I-ho-ch'üan lai-la*" (the Boxers have come) was passed from mouth to mouth. Placards were pasted on the walls and passed from hand to hand, pointing out the evil doings of foreigners in Peking and Tientsin and calling on the people to see that the same was not done in Manchuria. Under leaders from Shantung their drill was begun in the open spaces of the city and public court-yards. The roughs and idlers joined in, but the people only laughed at their absurd fantastic movements. Their ranks increased very fast, being swelled by the worst part of the many rebellious sects which exist everywhere in Manchuria; and then many began to regard the movement as serious. Things speedily went from bad to worse. Vile placards were put up everywhere. On these were boldly written horrible charges against foreigners, and all the loyal people of China were called on to rise up and sweep everything foreign out of the land. Days were fixed for the burning of the church and mission houses.

At this stage, on June 21st, I wrote the viceroy pointing out the dangers of the situation if this agitation was not stopped. His reply was cold, formal, and altogether unsatisfactory, which was the more remarkable that

I had most friendly communications with him a few days before over a number of soldiers who had been seriously injured by an explosion and whom he sent to me for treatment. Of course I regarded this sudden change in his attitude as a serious indication, and the only explanation was that he had received instructions from Peking to carry out the threats against foreigners which were now openly proclaimed. Friendly officials told me that this was really so. It was therefore thought right that all the ladies and children should go to the port of Newchwang. They, along with two of our missionaries, left on Saturday, June 23rd, leaving Mr. Fulton, of the Irish Presbyterian Mission; Dr. Young, who had recently arrived, and myself in Moukden. On the following day things got much worse. Large placards on yellow paper were put up on the gates in open day. The soldiers received instructions from the authorities to practice the Boxer drill, the governor-general and other high officials were in entire sympathy with the movement, and the Imperial nature of it became clear. Sunday, the 24th, was the day fixed for the burning of the church. We went to the service as usual, and there was a congregation of 300 or 400. Although a large crowd had gathered at the gate, and there was considerable excitement, no attempt on the church was made; but later in the day one of the street chapels was attacked. All seemed surprised that foreigners would dare to remain in the city which, by this time, was in a state of disorder. That evening many of the patients got alarmed and left the hospital; and on account of telegrams received from Newchwang, and a change for the worse in the general situation, we decided to leave next morning. We considered that our presence there would merely expose the Christians to greater danger. We got out of Moukden without any difficulty and came to Newchwang by the Russian railway. It was as well we left when we did, as the line was cut by the Boxers the following day. I received letters from my assistants up till Friday. Patients, *in and out*, had greatly diminished in number. On Saturday, 30th June, I got the following telegram from my senior assistant: "About 4 p.m. to-day the church was burned, men's and women's hospitals looted; whether Pastor *Liu* (native pastor) is living or dead is not known, nor how many Christians have been killed." Shortly afterwards another arrived, which was sent off about two hours later. "Men's and women's hospitals, dwelling-houses, and Bible Society premises have been burned to ashes by the Boxers."

We have not yet been able to find out how many or if any of the native Christians have been killed, but we much fear many must have suffered. The hospitals in *Liao-yang*, *Chin-chow*, and *Kwang-ning* have been looted and burned, and we fear that those in *K'ai-yuan*, *K'uan-ch'eng-tsu*, and *Kirin* have also been destroyed.

From what I have said I think it will be gathered that we in Manchuria had never anything to fear from the resident population. The Boxers there

were a feeble folk, and would have remained so if they had not received Imperial sanction and been joined by the regular soldiers.

I need hardly say that the entire hospital equipment, which was very complete, is lost, as well as our own personal belongings, with the exception of a few summer clothes. I fear the same can be said of many other hospitals and houses in China.

The outlook in Manchuria at present is dark enough, but we are waiting and hoping that the door may soon be open again and that God will overrule all that is happening for the extension of His cause in that land.

Arima, Japan, August 13th, 1900.

THE BOXERS AND THE HOSPITALS.

By HENRY D. PORTER, M.D.

The medical work has suffered from the Boxer war as seriously as the other forms of missionary work. In every aspect the process of continuous destruction has been most saddening. No considerations of benevolence or humanity have influenced either the Boxers or the Chinese government. Nothing but an insane rage against everything foreign, either in name or appearance, has actuated the vast numbers of those who have been commended by the Dowager-Empress as "faithful patriots." The several hospitals at Tientsin fortunately escaped the impending destruction from the fact that they were within the defensible limits. Just as soon as the foreign troops began to come, it was natural that the several hospitals should be absorbed, since the number of wounded men was large from the very first, and these ready furnished hospitals were the most suitable for immediate use. It is true that not all of them were used, but the most available were at once absorbed. The viceroy's medical school and hospital stands upon the Taku Road at Tientsin, farthest north of all the several hospital enclosures. This was at once taken by the French officials for a general field hospital. The next one in the order of space was the *woman's hospital* in charge of Mrs. Dr. Howard King. The location of this admirably conducted hospital was especially dangerous. It stands in the rear and north of the London Mission premises in close contact with the native houses. All of the native houses were sources of constant peril to the foreign residents, being filled with spies and well armed belligerents, who loop-holed scores of the houses and shot indiscriminately upon the adjoining residences. The attack upon the foreign residences began upon the seventeenth of June, the day of the capture of the Taku forts. The forts were taken early in the morning. The authorities at Tientsin had no doubt fully prepared for the attack on Tze-chu-lin. Just as the clock turned three, in the afternoon, the residents were startled by the

first shrill whistle of a passing shell, sent from the fort east of the viceroy's yamén. From that hour, with few intermissions until the 13th July, when the native city was gallantly entered, there was incessant firing of shell and of rifles. The amount of sharp shooting under the head of "sniping" was untold. On account of this sniping it became necessary to set on fire all the native houses in the French concession. These backed up close to the mission premises. The result was that all the native houses, from the alley north of Vvard's, were burned. Dr. Howard King's hospital barely escaped this fire. Mrs. King happily succeeded in getting away many of her drugs and medicines. These were carried to her own house, on the west of the Taku Road, necessarily in confusion. Unhappily not enough were carried away to secure exemption from the looting of French soldiers. These forced themselves in and destroyed utensils and drugs to their hearts content. The firing became so incessant that all residents moved away from their homes, either to Gordon Hall or to Mr. Cousin's commodious house. Mrs. King's work was thus ended for the time being. For a period of twenty-two years, under the patronage of Lady Li, as long as she lived, and through her gifts, after her death, Mrs. Howard King has carried on her skillful service. It is melancholy enough to know that the Boxer war has ended it for the time being; the hospital being an abandoned house amid other general ruin.

Mrs. King bravely decided to stand by the stuff, and was one of the few women who endured the peril of the whole siege and the discomfort which followed the final victory.

The London Mission Hospital.—This hospital was the next in order of location and better protected by buildings than others, so that it has suffered less. For the first ten days of the siege it was necessary to abandon it with other of the London Mission premises. Immediately after the relief of Tientsin and the rescue of Admiral Seymour's party, Dr. Smith decided that it was best for him to depart for England. The hospital therefore was permanently closed and the whole grounds devoted to lodging the many refugee Christians who flocked in from the city and suburbs. We learn that nineteen of the London Mission members were killed in the fierce outburst of the first few days of attack. The hospital has over it, or rather the compound, an American flag, intimating that it is held in reserve for American occupation when needed. Thus far, however, the hospital has not been used, nor the commodious waiting and dispensary building adjoining the Taku Road.

The Isabella Fisher Hospital.—This fine collection of residence and hospital buildings, belonging to the Methodist Episcopal Mission, was in charge of Drs. Benn and Stevenson. During the days of the siege, since the firing was persistent and dangerous both from the north-east and north-west, the hospital was abandoned. When most of the residents decided to escape after the third of July, Dr. Stevenson went in company with others to Japan. Dr.

Benn, however, decided to remain and care for the refugees who flocked about. As soon as the American troops came in from Manila the hospital residence and wards were absorbed as a general hospital. It has proved itself of essential value to the several hundred wounded who have been brought in from the half a dozen fields of battle. Unfortunately the medical service had no place for the skilled service of Dr. Benn. She was relegated to the mild service of considering the state of the markets, consisting chiefly of eggs, chickens, and rutabagas, to be secured at ruinous prices.

With the arrival of the transport *Grant* and the fourteen Sixth U. S. Cavalry there came a company of selected and well trained nurses. Eleven or more were assigned to the hospital service here, which included not merely this hospital but also that of the marine corps located in the Victoria Road.

The hospital has been under the charge of Lieut. Schriener, a gentlemanly and capable officer. At present there are two hundred sick and wounded in the wards. Some sixty were quite recently invalided home and transferred to the hospital ship.

The French General Hospital was at the south edge of the destruction, which was so terrible in the French settlement. Its quarters were preserved and its wards have been continuously useful in care of the French sick and wounded.

The Victoria Hospital, the special pet of Municipal benevolence, has been peculiarly serviceable as a hospital for British soldiers and officers during the two months of defence and occupation. Gordon Hall has proved itself an invaluable place for the careful treatment of British wounded. The Japanese have their own field hospital and marine corps service. The same is true for the Sikhs from India a special field hospital being opened for them.

The following is a list of the mission hospitals destroyed as far as known at present:—

London Mission Hospital	...	...	...	Peking.
Presbyterian Hospital	...	...	...	"
Methodist Episcopal	...	...	...	"
Woman's Hospital, American Board	...	...	...	"
" " Methodist	"	...	...	"
American Board Hospital	...	...	...	T'ung-chou.
Presbyterian	"	...	...	Pao-ting-fu.
American Board	"	...	...	"
London Mission	"	...	...	Ts'ang-chou.
" "	"	...	...	Hsiao-chang.
English Methodist	"	...	...	Lao-ling.
American Board	"	...	...	Lin-ch'ing.
Canadian Presbyterian Hospital	...	...	...	Chu-wang.
" "	"	...	...	Hsin-chen.
" "	"	...	...	Chang-te-fu.
* English Baptist	"	...	...	Ching-chou-fu.
American Presbyterian	"	...	...	Wei-hsien.

* Latest word from Ching-chow-fu reports this hospital as still standing, but looted.—
(Editor CHINA MED. MISS. JOURNAL.)

The hospitals in Manchuria and Shansi are probably all destroyed by burning. We have no definite word from Kalgan, but every probability is that the buildings were destroyed with other property. The Russians at Kalgan escaped in a body; thirty-three going away. Their homes and the beautiful Russian church was destroyed. Dr. Murdock may have gone to Mongolia with the other missionaries.

The world has never heard of so appalling a conclusion of benevolent work. The only solace is that so many of the workers have escaped to begin in God's own time their work anew.

Among those who have fallen victims to the terrible rage of a foolish and ignorant people are Dr. Geo. Y. Taylor and Dr. Hodge and his wife.

Dr. Taylor will be remembered by those who attended the Shanghai conference as one of the most gentle and courteous of the many fine members of the profession who attended that meeting. Dr. Taylor was for many years associated with Dr. Atterbury at Peking. When the station at Pao-ting-fu was opened he was glad to go to the new station. He gave himself with absolute devotion to the constant work of the dispensary and hospital. Being without family cares, that devotion was especially signalized.

The Boxer troubles came upon the station late in May as a sudden cyclone. The Belgian officials in the Imperial railway made an attempt to escape, and finally succeeded with the loss of a few of their number. Their dangers led the missionaries to delay, in the vain hope that they might either be protected or might secure a guard to the coast. The destruction of the railway to Peking on the 25th May cut off that way of escape. Letters were received from them up to the 7th of June and telegraph messages ten days later. Then absolute silence with the brief message of Mr. Wm. Cooper that they were all safe in the yamên. This was the 25th June. From a faithful Chinese friend who left the city with his son on the twenty-ninth of June we know that Dr. Taylor was at his city dispensary as usual on Thursday, the 28th, which was the second of the Chinese month. This same messenger returned to the city three weeks later when all was desolation. It was currently reported that Dr. Taylor when taken with others outside of the city to be beheaded at a Boxer temple, plead with his assailants the years of his benevolent work and the good he had tried to do. But this did not affect them in the least. Dr. Taylor undoubtedly thought as Pitkin, of the American Board, said in a late letter: "It's a glorious cause to die for."

Dr. Hodge and his wife suffered at the same time. They had come out little more than a year before. They had proved themselves to be in a peculiar way very attractive and winning. No one had met them who was not charmed with their fine attitude toward the work. And the earnest spiritual direction of their thoughts had added to other attractions. Dr. Hodge was a grandson of the once very distinguished Dr. Hodge of Philadelphia, who so

long held sway as one of the very first of American practitioners and writers. The sad ending of a career of usefulness in China will affect a very wide circle of personal friends as well as that world-wide circle of interest in medical missionary effort. Dr. Hodge had been recently appointed to the hospital in Peking. He had but just returned to Pao-ting-fu from a day's visit to the capital when the way of getting away was cut short.

Among those happily rescued from the bitter grasp of fate in the person of the Empress-Dowager are Dr. John Inglis and wife; Miss Dr. Leonard and Miss McKillican, of the Presbyterian Mission; Dr. J. H. Ingram and family, of the American Board Mission at Tung-chou; Dr. Geo. Lowry, Dr. Anna Gloss and Miss Dr. Martin, of the Methodist Episcopal Mission; Dr. Saville, of the London Mission woman's hospital.

Of those not now connected with mission work, but whose long and useful service is well known, are Dr. John Dudgeon and Dr. Robt. Colman, Jr. When the record is told of their endurance and labor, it will be a splendid record well worthy of passing into the great and permanent history of these momentous months of 1900. Dr. Inglis lost a child during the siege.

American Board Mission, Tientsin, August 31, 1900.

THE DESTRUCTION OF HSIAO-CHANG.

By S. S. MACFARLANE, L.R.C.P.

[The JOURNAL has been favored by Dr. MacFarlane with the following copy of his letter to the secretary of the London Mission, giving an account of the destruction of his hospital in Hsiao-chang, Chi-chou, in the province of Chihli.—EDITOR C. M. M. J.]

The storm has burst. The inevitable has occurred, and by this time the successful little Chi-chou mission is no more. Telegrams in your home papers will have given you some information of how things are working in China, instigated by that vixen of an Empress-Dowager and her numerous advisers. I wish, however, to confine my letter to what has been transpiring in Hsiao-chang and district. Recs will, long ere this, have told you of our winter troubles and how the sum of 4,500 taels has been paid by the Chinese as compensation. This was but the beginning of things. After I had returned from the annual meeting I found matters beginning to look very serious. Threats came thick and fast from all quarters, and we continued to live the anxious life of the past winter. As long as our guard of fifty cavalry were on the spot nothing was attempted by the Boxers. Mrs. MacFarlane on 21st June wisely disbanded her school, and not any too early. The afternoon

previously (20th) an order came from the north to withdraw our guard. All was ready, when at 11 p.m. another messenger came in saying: "Stay."

The perspiration on the horse's flanks was churned into a kind of froth, showing the speed the animal had come. At midnight we men (Meech, Bridge, self, and preachers) held a thanksgiving prayer meeting at this good news, for the withdrawing of troops meant to us either one of two things—fly, or be massacred. After the memorable midnight service one of the preachers casually remarked that being so busy he had eaten nothing all day. I at once got the preachers into my dining room and commenced lighting the spirit lamp with object of procuring some hot water, when *bang* went the apparatus right in my face. My hair caught fire. In trying to put this out I discovered the curtains all ablaze and the table cloth on fire. Forgetting my own injuries I helped to extinguish the curtains and save the house. The result was that my hair, moustache, eyebrows were burnt; the whole skin of my forehead, nose, cheeks, and right ear gone. Praise God my sight was preserved. In a short time my eyelids so swelled I could scarcely see. You should have observed me afterwards; my face enveloped in lint soaked in carron oil, with holes cut for my eyes and nose. I was a sight for the gods, I assure you! And all this in the excitement of the Boxer troubles which increasingly threatened our lives and mission property.

June 21st.—We received an urgent telegram from the American and English consuls: "Escape at once; all foreigners leaving; join the Americans and fly south with them." We therefore handed our property and belongings over to the magistrate and stated we were leaving under consuls' orders, as also the Americans. He refused to have anything to do with the place, and said he couldn't protect the mission. He urged and pleaded with us to skip without delay, as the Boxers were organizing an attack and he couldn't protect us. We then asked him to provide carts. Still the same result. We then sent to our surrounding native Christians for carts, but poor folks—they who had not fled offered to take us to Pang-chuang, but who would protect them on their homeward journey. Their carts would be taken and animals stolen to a dead certainty, so we had no help from them and I don't blame them either. Meantime we had arranged to have an allowance of a cabin box apiece, with our clothing and the most valuable things we could take. This was all packed and ready on the evening of 21st June for departure as soon as any carts could be procured. About 7 p.m. on the same evening a messenger came galloping into town with orders from headquarters for the troops to pack and clear without delay. In less than an hour they were gone! The officials who had so often been in our home and fed with us and were our friends suddenly bolted without saying good bye. There was a fix for us. Night drawing nigh, Boxers and mission haters all around us, and no protection.

A few native Christians possessing fire-arms and helping to guard our compound, finding the soldiers gone, cleared out themselves. Only a few faithful stood guard all night. Although my face was so severely injured I took my turn half the night, peeping from my eye holes in the lint dressing. My great fear was getting erysipelas from exposure to cold, but God graciously shielded me from this.

Next morning the real trouble began. During the previous night the Boxers got information that our body guard had been withdrawn. We have several people in town who hate the Jesus' doctrine like poison, and they circulated reports that the soldiers had been withdrawn and we were unprotected and that now was the time to strike. The first thing we heard was our new mission chapel at Ke-ts'un, eighteen *li* (six miles) away, rebuilt by compensation money, had just been fired, and the same crowd of 300 were making for our premises with the view of exterminating us all and burning down the premises. There was a fairly strong wind blowing. Oh for those carts! None to be had anywhere. We hung on till about 5 p.m, when things came to such a pass that we had to fly. We possessed two mission carts, and one of our preachers had a cart, but no animals. A horse and donkey were found and put in the traces. The town residents began to rise. Here were we boxed in. We had besides ourselves five students from Mongolia and Peking. Both places were extremely dangerous, so we took them with us. Directly we left our south gate the crowd, composed mostly of our own towns-people and local Boxers, entered the north gate. I turned round, and the last thing we saw was my cook flying for his life. We fled on, and as there was no room in the carts all the men walked. Imagine me tramping my portion of the forty miles with face bound up as described and the wind blowing a miniature gale. We had no escort through places swarming with Boxers, so our faithful few (twenty) armed themselves and accompanied us. Meech had a Mauser, also Bridge, and I carried a Hotchkiss carbine with a belt of sixty-three cartridges, besides revolver, intending to sell our lives dearly in the protection of our families should we meet the enemy. We travelled all night, except two hours' rest at midnight, and reached Pang-chuang next evening, a sorry sight. I was covered all over with dust, and my face !!! We found our friends waiting for us and all ready to start. Here an escort was provided for us by the governor of Shantung (Yuan). He is friendly to foreigners, but we being on the borders of Chihli, came under the governorship of an anti-foreign Johnnie. We proceeded next day in thirteen carts bound for Chi-nan-fu, the capital. Here a messenger arrived from Hsiao-chang with following news: Directly you left the howling mob entered and commenced looting, which went on far into the night. They next attacked the dispensary, and with implements began to smash every bottle in the place, leaving valuable medicines streaming down the shelves. They next demolished the hospital and operating rooms, stealing of course

all the instruments and destroying what they could not take away. "When I was leaving," said the messenger, "one of your houses was in flames."

You may imagine, dear Mr. T., how we felt at such news. People in town, whose lives I have many and many a time saved from opium poisoning, helped them through many an obstetric case, and done endless kindnesses for them—to think that these should be the first to commence the loot. My heart bleeds for our native Christians. We were the keystone of the bridge that held the thing together. Now we go, what will happen to them. Add to this the serious famine that threatens the district. "God help them" is my daily cry.

I have not time to give you particulars of our eventful trip south—of how we were nearly mobbed in passing through a fair; of our treatment in crossing the Yellow River; of our arrival at Chi-nan-fu and the great kindness shown by our American friends; of our journey by boat to Yang-xia-kow, the nearest seaport, where we caught the Japanese steamer, a boat chartered by the Consuls for refugees at 300 dollars a day, whence we made our escape to Chefoo; of how we were forbidden to go north to Tientsin or Wei-hai-wei, or even south to Shanghai; the only way of escape being Japan. Landing at Nagasaki we found hotels, boarding-houses, and every available place crammed with refugees. The missionary committee advised us going on to Kobe, and here we are, *pro tem*, at the A. B. C. M. college. The vacation is on, and there are quarters for the present.

Kobe, Japan, July 21st, 1900.

LOSSES OF CANADIAN PRESBYTERIANS IN HONAN.

By WILLIAM McCLURE, M.D.

Another month will just complete the first decade since Chu-wang, the first station occupied by our Mission in Honan, was opened. A little later Hsin-chen and in 1894 Chang-teh were opened as stations. At these three centres medical work has been carried on almost continuously. In the first half decade patients, especially at Chu-wang, were few, but during the latter five years there have been large clinics at all three stations. At Chu-wang, in 1896, the number of treatments reached 28,104. In all 2,500 surgical operations have been performed, not including teeth extraction, opening abscesses, etc.; of these, 300 were operations for extraction of cataract. A woman's hospital had also been established at Chu-wang.

The confidence of all classes in the benefits of Western methods of medical treatment was much in evidence and the goodwill of the people towards our work was most gratifying. These things make one feel that the present outrages are in nowise due to purely *local* causes.

Dr. Menzies and I had planned to leave Honan on June 1st, with our families and Dr. Margaret Wallace, for Pei-tai-ho via Tientsin. Fortunately, as it afterwards turned out, our departure was delayed till the 4th of June, so that when we reached Pang-chuang, on the 11th, Dr. Porter had just received telegrams telling of the serious rising in the north around Tientsin. Had we left Honan at the time we first intended to would very likely have run into the troubled region before being aware of it and probably would all have been killed. After a week's stay at Pang-chuang, in the hope that the clouds might scatter, it was evident that the storm was only gathering more force as time went by. Telegraph and courier services with the north were both cut off. Through the kindness of Mr. Hamilton, of the American Presbyterian Mission at Chi-nan, we learned that the route through that city was still safe and also that a steamer specially chartered for the purpose by U. S. Consul Fowler at Chefoo was lying off the coast to rescue all refugees; we therefore determined to take this route. With an escort of twenty soldiers, furnished by Governor Yuan, we reached the coast without mishap or hitch of any kind.

Arrived at Chi-nan we learned that affairs in the north had been growing continually worse and that the imperial troops were on the side of the Boxers. We thereupon sent a telegram to the rest of our mission in Honan, urging them to escape at once and advising them also to come east by way of Chi-nan as Mr. Hamilton had good hope of being able to keep communication open till all the foreigners had escaped. On receiving this message part of the mission decided to take this route, but at the last moment their carters refused to go east, and the officials also refused to send an escort that way, and so all were obliged to make south for Hankow. The dangers they passed through and the hardships they endured on that long, perilous journey have already appeared in print and need not be repeated here. It does seem wonderful that any of the party escaped alive. Who dares say the age of miracles is passed?

The last night our missionaries spent in Chu-wang; while they were in one yard the rabble was looting the houses of the other yard. The ladies accepted the invitation of a friendly neighbour and spent the night in her yard. After the foreigners had left, the houses and hospitals at all three stations were looted. Medicines were poured out or destroyed and bottles taken. What can they do with the many hundred dollars' worth of instruments?

At Chu wang the houses and hospital and dispensary and chapel have been torn down more or less completely, but at the other stations the buildings have not been damaged much so far as we can ascertain. At the former place the hospital buildings had only been erected about a year. So as far as Chu-wang is concerned we will have to begin nearly where we did ten years ago. And yet not quite, for there are some things mobs cannot carry off. At Chang-teh the officials, including the *Fu* and *Hsien*, honored

the looting with their presence, and no doubt that day was a civic holiday. The best things of course went to the official residences.

ESCAPE FROM HONAN.

By REV. J. GRIFFITH.

The long journey of the Canadian Presbyterian missionaries from North Honan to Shanghai, via Hankow, was not devoid of exciting adventure. A much nearer route to the coast would have been via Chi-nan-fu to Chefoo, but the magistrates at Chang-te-fu refused an escort eastward and, moreover, no carters could be found who would consent to go in that direction.

Drs. McClure, Malcolm, and Menzies, with their families and Miss Wallace, had already started for Pei-tai-ho before the trouble in the north was known to be serious, but they escaped safely. Those who went south were for convenience divided into two parties. One party consisted of three Peking syndicate engineers (Messrs. Jameson, Reid, and Fisher), who were working in Honan, and their retinue, together with Messrs. Slimmon and Mitchell and their families of Hsin-chen station. The other party consisted of the members of Chang-te-fu and Chu-wang stations: Mr. and Mrs. Goforth and four children, Mr. and Mrs. Mackenzie and one child, Dr. and Mrs. Leslie, Misses McIntosh, Douw, and Pyke, and Messrs. Hood and Griffith. The first ten days upon the road were not characterized by any particular inconvenience which would not at any time be experienced during a cart journey in July, which included the crossing of the Yellow River and the heat and dust of the famous deep roads (sometimes sixty or seventy feet below the level of surrounding country) through the loess regions of South Honan.

On the evening of the tenth day both parties reached Hsin-tien, a market town about thirty *li* from Nan-yang-fu. Here it was learned that Roman Catholic property in the latter city had been burned, and that a tower, which they had built outside the city, was being besieged.

The reported restlessness of the surrounding country led those headed by the mining engineers to push on the same evening to Nan-yang-fu in order to ask for adequate protection for the whole party through that territory. Almost as soon as the remainder of the party had settled down in their inn a demand for silver was sent in by the leader of a band said to number about 100 men. This was refused, and about 11 p. m. three Chinese were sent on to Nan-yang-fu to ask the magistrate for a good strong escort. Preparations were at the same time made for defending the inn as well as possible, as an attack was openly threatened. The night passed quietly, but the messenger did not return until the next day (Sunday, July 8th) at eight o'clock, and then only to report no success. It thus became necessary for the party to leave their

place during daylight. The mayor of the place, who had visited them during the night, came in the morning again and urged, almost to the point of demanding, that the party should leave the town. He promised an escort of fifty men to see them safely for thirty *li*. A start was at last made, after the carters had been guaranteed any losses. The party had to pass through an immense number of sight-seers, who must have numbered 10,000. Whilst inside the city no particular hostility was shown, but as the party got outside the south gate the mob there began throwing stones and missiles. This was followed by a rush with swords and other weapons. The carters tried to rush through, but soon the carts were in confusion, and some of the leading mules were killed, thus stopping the advance. Fierce attacks were made upon the foreigners, who were unable to offer much armed resistance, and they were soon almost at the mercy of the crowd. Fortunately at this time the looting of the carts began, and the desire to share the spoils seems to have drawn off those who most desired to murder. Taking advantage of the lull the foreigners escaped in little parties as best they could. Four (Messrs. Goforth, Mackenzie, Griffith, and Dr. Leslie) had been wounded with swords and a large number with stones and blunt weapons. Mr. Goforth and Dr. Leslie were most severely wounded. The former and most of his family were fortunate in being taken in and cared for by some Mohammedans in a village close by. Fortunate also one cart left the scene of trouble and brought Dr. Leslie and two of the ladies a distance of five *li* toward Nan-yang-fu. The remainder of the party got together as best they could, but had not got far from the carts when men and boys, armed with swords and dirks, compelled them to wait while they took from their persons whatever small remaining articles took their fancy and also some articles of clothing. Not long afterwards the last group of the party got news of the cart in front in which Dr. Leslie was and managed to join it. The carter refused to go further, and Dr. Leslie had to be carried into a wretched little guard-house by the road side. It was not until the afternoon that they succeeded in begging a little water and dry Chinese bread. Later a troop of mounted soldiers from Nan-yang-fu appeared on the scene, but they refused either help or protection. Toward evening all the carts came along, bringing Mr. Goforth and family. The party then proceeded to Nan-yang-fu safely, but there mobs on the streets and at the inn caused an evening of anxiety. Shortly after arrival an official appeared from the Hsien's yamèn and bluntly declared that he would not afford them any protection and that they must leave the city as soon as they had eaten a little food, and carts could be prepared. He even declared that he had received orders to allow no foreigners to escape, and his attitude was such as to practically encourage a massacre on the spot. However the party refused to move unless money and an escort was given them, and finally the sum of 19,000 cash was brought and an escort of

twenty foot soldiers and forty mounted men promised. This promise was only a ruse to get them on the road, and after three times refusing to leave the inn until the escort actually appeared they at last consented to leave with about a dozen foot soldiers who were on hand. Previous to leaving hints had been freely dropped among the servants that they should desert the foreigners and not share the fate that would soon be theirs. The Roman Catholic mission at Nan-yang-fu was being besieged at this same time. The threats were that the party was to be murdered in order to terrify the Catholic mission people. The start from Nan-yang-fu was made between one and two o'clock on Monday morning, the 9th. The remainder of the night was, contrary to expectation, passed without any disturbance beyond the accidental separation of two members of the party from the rest. The escort gradually disappeared, and by morning none remained. During Monday they were subjected to many annoyances and insults from the villages through which they passed, and at different times it seemed certain that all would have been massacred had they not been able to prove that they were Protestants and not Roman Catholics. That night Hsin-yie-hsien was reached, and the next day they had a good escort from there and no further trouble. Fan-cheng was reached that evening, and there the whole party was again united. By order of the Viceroy Chang Chih-tung boats had there been prepared for the party; and they were escorted the rest of the way to Hankow by two gunboats and a good guard of soldiers.

Of the wounded, Dr. Leslie and Mr. Goforth suffered most severely. The latter received a sword-slash which, after passing through a heavy pith hat, inflicted a wound about four inches long on the back of the head near the base of the skull. The skull itself was injured somewhat, and some small pieces of bone subsequently came away. Dr. Leslie's wounds were still more severe. The extensor tendons of the fingers of his right hand were severed at the back of the wrist, rendering the hand useless. The tendon of the knee-cap of his right leg was also severed, making it impossible to extend the leg. Both of these men received also several minor wounds.

Perhaps the most remarkable thing in the cases of the wounded was the rapidity and satisfactoriness with which all the wounds healed. They had been inflicted with dirty and rusty Chinese swords, but neither fever nor blood-poisoning followed in any case. Perhaps the freeness of the bleeding proved a help, for it was not until some time after the riot that Dr. (Miss) Douw could get an opportunity to bind up the wounds. Even then, and for two weeks longer, no antiseptic or other medicines could be obtained. Nature herself was the healer—with the aid of a daily cleansing in boiled water—and by the time Hankow was reached only the severer wounds remained unhealed.

Chefoo, September 7th, 1900.

Correspondence.

A Baseless Slander.

The JOURNAL is glad to publish the following letter from Dr. Stooke, who has been subjected within his first year of service in China to one of those baseless slanders which are the bane of missionary life. As has been said in another part of this issue, we welcome frank manly criticism of our methods and results, but criticism for not taking in a desperate case needing amputation or excision when unprovided with the instruments or accommodations for dealing with such cases is not only unjust but most disheartening to those affected by it:—

DEAR EDITOR:

I should be very thankful for a wee corner of your space just to defend myself and mission from a slander which appeared in the *China Gazette* of June 7th, 1900. Members of our Association in the Yang-tze Valley may possibly be glad of another version of that story. The facts are these: Towards the end of May last one of the Ichang Customs' staff wrote, asking me to take in a man who had had his leg fractured. Thinking it a case requiring merely cleansing and setting and that he could be sent to his home soon afterwards, I told them to send the man along and I would do my best. The man was brought in, and I then found a compound dislocation at the ankle with a wound as large as the palm of my hand just teeming with maggots. The accident had happened a week before. The case evidently needed amputation, or a very free excision, and in my opinion operation would have proved fatal. Having neither proper instruments, nor any arrangements whatsoever for putting up patients, I had to send and say I could not take charge of the case. The Customs' official who had sent him in thereupon had the patient removed, and finally the port doctor operated at the Roman Catholic hospital. Then in high dudgeon he wrote to the *China Gazette* a paper headed "Good Samaritans up to date," misrepresenting absolutely the facts of the case. The whole article suggested that my hospital was running and that I refused this man because it was not the sort of case we as a mission cared to take in; also that I turned the man out and left him to die on the beach; ending grandiloquently

with a statement of our missionary salaries and the values of our respective dwelling houses; this last in itself showing the pure spite of the writer. A subscription list was started and \$100 given to the mother superior, and in the article referred to it was remarked that no missionary had given anything towards this. No missionary knew of the subscription list till long after it was closed; it was not sent to us. The article contained touching references to such texts as "Inasmuch as ye have done it, etc.," clearly proving the truth of Shakespeare's words: "The devil can quote Scripture for his purpose." Copies of this, I understand, were sent to all the river ports and also to many Japanese and home papers.

I almost apologise, Mr. Editor, for mentioning so trivial a matter, but I fancy some who have only heard the one side may be glad of my version. I should be very glad also if others of our association would let me know if in their work they find it necessary to refuse desperate cases, for sometimes it appears very inhumane so to do.

I am, etc.,

GEORGE F. STOOKE,

Est. Church of Scotland Mission, Ichang.

CHEFOO, 4th September, 1900.

**Graduation of
Medical Class
from Woman's
Hospital,
Foochow.**

Dr. Kate C. Woodhull kindly sends the following to the JOURNAL in regard to the completion of their course by a class of women medical students she has had in training in Foochow: "One of the most important events of the year was the completion of the six years' study and training in the hospital of our four medical students. Although their diplomas would not mean much anywhere else they are highly prized by them, and we try to make as much of the occasion as possible, so that it may always be something pleasant for them to look back upon. The graduating exercises were held in the church, and we had a large audience, consisting of the college boys, neighbors, friends of the graduates, etc.

"All the class but one were graduates of our Po-na-sang girls' college: One was a graduate of the Methodist girls' school.

"One of the graduates remains as assistant in our hospital, and has charge during my absence this summer. We had hoped to have two of them as assistants in the hospital, but one married into a heathen family and has not been permitted to return. She is practicing in her village, and has a grand opportunity to do evangelistic work, as she is the only Christian in the village. She has a hard life, as her husband's family persecutes her for being a Christian.

"Another has married a member of the Methodist Church, is living in a village near Foochow and seems very happy attending to private practice. She has purchased an outfit of drugs and instruments and rides in a handsome doctor's chair. The other student has charge of the hospital and dispensary in Ing-hok, left vacant by Dr. Goddard's return to America. She is doing a good work there. Ing-hok is forty miles from Foochow. We visit her occasionally to assist and encourage her.

"We feel we have much to praise God for in having had such a pleasant class of medical students to train. We trust their lives will be increasingly useful. We have received two new students into the hospital to work with Dr. Ling."

This is the third class of students graduated from this hospital, making nine in all who have been trained.

Dr. Parry's Medical Itinerating.

Dr. Parry under date of June 19th writes as follows from Kiating: "I have just returned here from a $2\frac{1}{2}$ months' absence, occupied in visitation of the stations between this and Chungking. I took my portable dispensary with me, which makes a half coolie-load and which comes in usefully in the stations where there is no medical

missionary. In this way I am glad to be able to get in a little medical mission work in the intervals of the other mission duties of a "visiting elder."

"In addition to the usual round of malaria, worms, ulcers, abscess, and skin diseases, I will just mention two or three more unusual cases met with. One was a girl with gangrene of toes through trying to bind a foot already well grown, another a man with abscess over patella, who was limping round one morning at a wayside inn at which we were halting for breakfast and who was relieved while our breakfast was being prepared, and who seemed very grateful for the attention bestowed on him.

"During my stay at the city of Lu-cheo I was asked to see a man with "bad legs." I went on to the street where he sat, and great was my astonishment at finding a youth quietly sitting there with one of his feet detached and lying on the pavement beside him black and shrivelled. Nature had just completed an amputation at the lower third of the tibia and fibula, and a smooth rounded stump was left with very slight bleeding. The other foot was still on, but in the same condition otherwise; the tibia and fibula being bored for about two inches between the shrivelled foot and the stump. His story was that some one had put his feet in hot medicated water, after which they swelled and blackened. There is no doubt that his feet had been beaten for stealing, and gangrene had resulted.

"While I remained in Lu-cheo of course the stumps were dressed daily. The boy was apparently fairly well nourished and fleshy.

"Another case met with during my stay at Lu-cheo is worth mention, not for the sake of any effectual relief that could be given, but as showing what miseries are sometimes endured by Chinese women in childbirth. I was pressed to go and see a young woman of twenty, primapara, who had been in labour for six days. Having with

me no suitable instruments I went only as a forlorn hope, taking syringe, ergot, and perchloride jelly, etc. I found the poor creature in great distress with weak pulse and distended abdomen. On proceeding to examine I met a sight that I have not before seen the like of, and hope shall not again; the head had been delivered on the fourth day. The face was directed toward the right. The head was much distended; in fact was just a livid putrid fluctuating bag. A little manipulation brought down the right arm. The cause of the delay was then found to be a moderate degree of contraction in conjugate diameter, in overcoming which evidently the patient's power had been fully expended and the shoulders were wedged firmly in. Having worked the trunk into the transverse diameter, and applying traction in the axes of natural pelvic canal, the whole delivery was effected by dint of hard pulling. The placenta was partly expressed and partly removed by hand, and was whole. It was followed by a discharge of foul putrescent fluid and gas, and the parts remained gaping, distended, and brawny. No hemorrhage, but the sequel, as may be imagined, was a temperature of 103° on the second day, when an antiseptic douche was used. All the symptoms of acute septic fever were shown, ending fatally on the third day."

Dr. Seymour writes, under date of May 22nd, from Reedsburg, Wisconsin: "At the conference in New York great emphasis was laid upon the value of the medical work, especially that done in well-equipped hospitals. It was strongly recommended that there be more large hospitals at central points with a staff consisting of two or three physicians at least, with as many trained nurses. These hospitals might, in many cases, be union institutions, with the staff representing several denominations. Medical classes might also be conducted in connection with these hospitals, in

which case both instructors and students would be drawn from several denominations. This would result in a large saving of Mission money, both in the ordinary expenses of the school and in the salary of missionaries engaged in the work, and would give the students the benefit of better instruction from men who are especially fitted to teach them certain branches of medical knowledge. May the day soon come when such a combination of forces shall become a reality and more natives be trained to become medical, self-supporting evangelists among their own people, at the same time that more of the foreign doctors are set free to engage in other kinds of work for which there is so much need.

"Great stress was laid on comity in every department of missionary work, and I believe it will bear fruit in less overlapping of work and a more careful division of fields between the various Boards. This will naturally result in the reaching of many still unevangelized portions of the world."

Dr. Kerr, under date of August 9th, writes from Macao in the following sympathetic way of his anxiety for the safety of friends in the north: "During the disturbances in North China we have been exceedingly anxious for all the friends whom we know, as well as for all the members of the various Missions. Amid the conflicting reports we have vacillated between hope and despair, as the fate of those in one station was given, sometimes with positive certainty and at other times as an inference from more or less vague reports. Our present information is that the missionaries in Pao-ting-fu have been killed. Please say to any who are with you that our deepest sympathy goes out for them and we remember them in our prayers. We are looking for the interruption of missionary work to be of long duration, but we trust in the end

numerous obstacles in the way of the gospel and of progress will be leveled to the ground."

Dr. Kate C. Woodhull makes the following suggestion: "Would it be a good idea to let those who write papers for the coming General Conference choose their own subjects? A person can generally write better on a subject they choose themselves. If any important subject was left out,

volunteers could be asked to write on that subject.

"However there may be some reason I do not think of why this would not be the best way."

Dr. McClure writes: "Have you ever used cocaine hypodermically for scorpion stings? I have been using it for years now and seldom does five min. of a 4 % sol. fail to make a patient very happy. Possibly eucaine may be an improvement on cocaine."

Personal Notes.

Dr. Aitken, of Liao-yang, Manchuria, has returned home.

Dr. Mary A. Ayer, of Soochow, is in Shanghai.

Dr. Beebe, president of the Medical Missionary Association, writes that he has been having a most profitable vacation, and looks forward to his return to China with pleasure. His plan, when writing on the 3rd of May, was to return by way of Europe, leaving home in August. He was also planning to bring with him a large static machine and X-ray outfit, as well as, so he writes, "a greatly renewed enthusiasm and better preparation for efficient work."

Dr. Mary L. Burnham, of Chinnan-fu, is in Wei-hai-wei, serving in the British military hospital there as a nurse. With her is Dr. Wallace, of the Canadian Presbyterian Mission, and Miss Timmins.

Miss Berninger, of the Margaret Williamson Hospital in Shanghai, has been most kind during the past year in looking after the list of "Arrivals and Departures" which has appeared from issue to issue in the JOURNAL. It is hoped that Miss Berninger will continue during the coming year to render the same kind service to our readers.

Dr. Brander, of Chin-chow, Manchuria, has gone home. His hospital was burned about July 5th.

Dr. Frances Cattell, of Soochow, is studying at Shanghai.

Dr. Cochran, of Chiao-yang, Manchuria, has gone home, after suffering from an attack of fever.

Dr. Christie, to whom we owe the

account of the Boxer movement in Manchuria, is in Arima, Japan.

Dr. C. J. Davenport, of Wuchang, has been very ill with typho-malarial fever, and has gone home to England, it is said.

Miss J. L. Dow, of the Canadian Presbyterian Mission, has gone home.

Dr. Fowler, of Hiao-kow, is in Arima with Mrs. Fowler.

Dr. W. R. Faries, whose hospital at Wei-hsien, Shantung, was burned June 25th, is in Nagasaki, Japan, with his family.

Miss E. E. Fleming, M.D., who was associated with Dr. Johnson in I-chow-fu, is now in Tsing-tau, Kiao-chow, but is expecting before the time the JOURNAL will reach its readers to go to Chefoo for the winter.

Dr. James A. Greig had an interesting and thrilling journey in effecting his escape from the province of Kirin in Manchuria. He and his party went north into Russian territory, and were most kindly treated by the Russians, who did everything they could to assist them and help them on their way toward Vladivostock. By the help of these Russian friends, who towed them down the Sungari and Amur rivers to Habarovsk, they finally reached Vladivostock by rail. Mrs. Greig, however, was so worn out by the fatigues of the journey of over two weeks that she died in Vladivostock. She had been in feeble health for some time.

Dr. Gray, of Kai-yuen, Manchuria, has gone home to Scotland.

Dr. Gordon, of Kuan-cheng-tsi, Manchuria, has gone home.

Dr. Gillespie, of the same Mission. Irish Presbyterian, is in Arima, Japan,

Dr. Sydney R. Hodge, of Hankow, is busy in Shanghai.

Dr. Charles V. R. Hodge, who came to China only last year and who is said to have been murdered together with Dr. Taylor in Pao-ting-fu about the first of July, is said by all who had met him to be a peculiarly attractive man, as was also Mrs. Hodge as a lady. They came out to China bearing with them the best wishes of many friends in Philadelphia, where Dr. Hodge's father holds the position of secretary to the Board of Education of the Presbyterian Church. The anxiety of these friends and relatives during all these months of suspense must have been terrible, and now nothing seems to remain but the horrible certainty of their having suffered a fearful death.

Miss M. C. Horner, M.D., of Moukden, has gone home.

Dr. Hopkins, of Tsun-hua, Chihli, whose hospital was burned, together with all the Mission buildings, on June 27th, has returned to the United States.

Dr. Jno. Inglis, A. P. M., Peking, passed through Shanghai, September 13th, returning to the U. S. A. via Europe.

Dr. F. H. Judd, of Rao-chow (or Jao-cheo), has been rioted out of his place and his premises burned. Dr. Judd is now in Shanghai, where letters will reach him if sent in care of the C. I. M. there.

Dr. E. Ruel Jellison, of Nanking, has returned home to America.

Dr. Charles F. Johnson, of I-chow-fu, Shantung, is in Tsing-tau, Kiao-chow. His hospital has been looted by soldiers passing through I-chow-fu, but so far as heard from the buildings have not been destroyed.

Dr. O. L. Kilborn, Chen-tu, is at Shanghai.

Dr. Leslie, an account of whose terrible journey will be found in another department (see "Escape from Honan") has been invalided home. It is feared that he may never fully recover the use of his injured wrist and knee. With the exception of Drs. Taylor, Hodge, and Lovitt, who have undoubtedly been killed, Dr. Leslie has suffered more severely than any other physician in China during these recent troubles. The doctor has the sincere sympathy of all his medical colleagues in China, who hope that he may yet entirely recover from his fearful injuries.

Dr. A. E. Lovitt is supposed to have been murdered in Tai-yuen-fu about July 6th. If this news is finally confirmed it will make three medical men, so far as heard from, who have laid down their lives for the regeneration of China. Surely the deaths of these men and women, who have been so cruelly tortured and done to death, will not be in vain. Surely it must mean a new China in which will dwell righteousness.

Dr. Charles Lewis, of Chi-nan-fu, served as naval surgeon on board the U. S. S. *Yorktown* for several weeks in July, during the absence of the regular incumbent, and is now in Tientsin, hoping to secure a position in the forces of the United States as assistant surgeon until such time as the way is open to return to his regular work in the interior.

Dr. Learmonth was engaged for some time in hospital work among the British wounded in Tientsin, but at last accounts had left for home. He was in Tientsin all through the bombardment and the taking of the native city.

Dr. McAll, of Hankow, is in Arima, Japan, with Mrs. McAll.

Dr. MacFarlane, to whom we owe the interesting account in another column of the destruction of his Mission in Chihli, is in Arima awaiting instructions from his Society (the London Mission) as to what they wish him to do. His hospital was burned the latter part of June.

Dr. Daisy Mackin has gone to the United States.

Dr. W. E. Macklin is in Shanghai. His attempt to resume work at Nanking proved futile.

Dr. Menzies, of the Canadian Presbyterian Mission in Honan, has gone home to Canada. His home is in Toronto.

Dr. McNeill is in Arima, Japa.

Dr. Morley's hospital in Teh-ngan, which was erected with funds left by the late Rev. David Hill, at an expense of about £2,000, has been completely destroyed. This seems to have been an isolated case, as Teh-ngan is situated in Hupeh, far from the scenes of disorder in the north.

Mrs. Robert A. Mitchell, formerly Dr. Jennie Hill, had just returned from being married in Tientsin when the trouble broke out in Honan, and she and her husband were compelled to flee, leaving behind them the doctor's wedding gown as well as most of her wedding presents. She writes that they escaped without encountering any serious danger, though there were robber bands plundering on all sides and the Boxers were all around them, so that they were kept in a constant state of suspense. It was the party directly following them in which Dr. Leslie was, which had the severe experience described elsewhere. Mrs. Mitchell is now at 33 Soochow Road, Shanghai, while Mr. Mitchell has gone north to act as interpreter for the British.

Dr. Molyneux, Customs' physician in Chefoo, has been at the front since

late in July working in a military field hospital. During his absence Dr. Neal has been taking his place in Chefoo, in Customs' and private practice.

Dr. L. L. Moore, S. P. M., is at Kobe.

Dr. D. D. Muir, of Manchuria, having escaped to Vladivostock, has gone home.

Dr. McClure, who gives us elsewhere an account of the looting and destruction of Mission property in Honan, is now in Chefoo, having sent his family home to Canada.

Dr. William Malcolm has returned to Canada.

Dr. Peill is now in Wei-hai-wei holding a position in the British service. He writes: "As for my work it is rather irregular and varied. I am not on the regular hospital staff, so get no surgery to speak of, but am in charge of the island population outside the hospitals, namely refugees, other civilians, Chinese coolies, etc., etc. This being the case I have nothing very fresh or interesting to write about—minor accidents, carbuncles, ulcers; dysentery, diarrhea, etc., being my usual round."

Dr. W. L. Pruett, of Pao-ning, is at the C. I. M. in Shanghai.

Dr. H. Parry, of Kia-ting, is said to be in Ichang.

Dr. Edna Parks, who escaped from Wei-hsien only a day or two before the burning of the Mission there, is in Chefoo engaged in the study of the language.

Dr. E. C. Smyth, of the English Baptist Mission in Chou-ping, Shantung, late in June became assistant surgeon on board H. M. S. *Barfleur*, which for some time has been acting as flag-ship to the British fleet at Taku. Dr. Smyth was on shore at Taku for a fortnight assisting in the

work of the hospital there, after which he was detailed to convey twenty-eight wounded men—Chinese, Sikhs, and English—to Wei-hai-wei. Landing his charge there he proceeded to Hong-kong with twenty more men who were being invalided to that colony to be sent thence home to Great Britain. Dr. Smyth speaks in highest terms of his kindly treatment in the navy and of the courtesy which has been shown him. To one who knows the doctor personally it is easy to understand why, with his kindly genial disposition, he finds his path amid new surroundings a comfortable one to travel. Dr. Smyth is now in Chefoo hoping the way may soon open for him to return to Chou-ping.

Dr. J. A. Creasy Smith, of Si-ngan, writes that he is at present devoting himself to the study of the language, of which he hopes to get a firm grip before starting in practice in earnest. At present he has neither hospital nor dispensary, nor is he seeing patients regularly, but when he wrote in May he was hoping to secure premises this summer and be ready to open in the autumn. It is to be feared that the doctor may be greatly delayed in the beginning of his work according to the present outlook.

Dr. G. P. Smith, of Tientsin, has returned to England.

Miss T. Stevenson, M.D., of the Isabella Fisher Hospital in Tientsin, has gone to Japan.

Dr. Stormer is in Arima, Japan.

Dr. Stuart, M. E. M., is engaged in revising F. Porter Smith's *Material Medica*, at Shanghai.

There seems no room for doubt that Dr. George Yardley Taylor has fallen a victim to the mob in Pao-ting-fu. Dr. Porter tells some of the incidents connected with his death in his article in another column, but as all we know comes only through Chinese messengers and thus may not be entirely reliable

we shall hope in our next issue to have fuller accounts of this most deplorable occurrence. Dr. Taylor was well known in North China as a skilful surgeon and lovely Christian and withal a most modest man, one in fact who was only too unwilling to let the outside world know what he was doing in the line of surgical work. If it proves true that Dr. Taylor has laid down his life for the Chinese, for whom he worked so faithfully for over a dozen years, it will be a very great loss to the cause of missions in China.

Dr. J. Tilsly, Kiukiang, is in Shanghai.

Dr. W. H. Venable, Ka-shing, may be addressed at Shanghai.

Dr. Wolfendale, of Chungking, who has within a year past opened a fine new hospital under the L. M. S. in that port, has been compelled to leave, and is reported to have become surgeon to the S. S. *Pioneer*, which has been doing such good work in bringing down refugees to Ichang.

Dr. J. A. Watson, of Ch'ing-chow-fu, has returned to England.

Dr. E. F. Wills, of King-shan, was driven from his station, and is in Hankow with Dr. Gillison.

Dr. J. R. Wilkinson, Soochow, is of the Shanghai community.

Miss M. S. Wallace, M.D., of the Canadian Presbyterian Mission, is in Wei-hai-wei, with Dr. Burnham, assisting in the care of the wounded British soldiers who are brought there from the front for treatment.

Dr. Westwater is in Kobe, Japan.

Dr. W. W. Wilson, P'ing-ang, is now in Richmond, England.

Dr. J. B. Woods, Tsing-kiang-pu, is stopping at Shanghai.

Dr. W. A. Young is in Wei-hai-wei, engaged in British service.

The following is from the *North-China Daily News* of September 1st. The reference is to the condition of things in Wei-hai-wei: "The medical staff is full, both in naval and military hospitals, and there seems no lack of nurses. Among the latter are Dr. Miss Burnham, of the American Presbyterian Mission, and Dr. Miss Wallace, of the Canadian Presbyterian Mission, and Miss Tymms, of the English Baptist Mission. The authorities have been fortunate in securing the services of these ladies in addition to the nurses of the regular staff."

A typographical error made the author of "A Case of Appendicitis," in July issue, "W. R. Francis." It should have read, W.R. Faries.

DEPARTURES.

July 9th, Mrs. Dr. BARROW, M. E. M., Tai-an-fu, for America.

August 3rd, Dr. C. J. DAVENPORT and wife, L. M. S., Wu-chang, for England.

August 4th, Miss J. I. DOW, M.B., Dr. PERCY LESLIE, M.D., C. P. M., for Canada; Dr. GERTRUDE TAFT, W. F. M. S., for U. S. A.

August , Dr. DAISY MACKLIN, M.D., H. G. WELPTON, M.D., F. C. M. S., for United States.

August 11th, Dr. J. MENZIES and wife, C. P. M., for Canada.

September 1st, Dr. E. R. JELLISON and family, M. E. M., for America; Dr. W. SQUIBBS, C. M. S., Dr. W. STEPHENS, for England; Dr. WM. MALCOLM, C. P. M., for Canada; Dr. J. R. WATSON and family, E. B. M., for England.

September 14, Dr. JOHN ENGLIS and wife, A. P. M., Peking, for U. S. A.

FOR SALE:—Dr. Inglis, on leaving for America, left at the Mission Press, to be sold, a copy of the American Year Book of Medicine and Surgery for 1900, (Surgery), just received by him. Price \$7.50 Mexican. Also, two bottles of dry antidiphtheritic serum, costing gold \$20.00 each, which are offered, for missionary use only, at Mexican \$20.00 each.

Latest News of C. I. M. Physicians.

[These notes were received too late to be placed in the regular "Personals."—ED.]

Of Dr. Millar Wilson, of Ping-yang, Shansi, only the following is known: He left his station on Tuesday, June 19th, for T'ai-yuen-fu to rejoin Mrs. Wilson, who had gone there previously. On reaching Ping-iao, two days' journey south of T'ai-yuen, he heard of the critical condition of affairs; continuing his journey he arrived at T'ai-yuen-fu on June 26th. The following day, June 27th, the Schofield memorial hospital, now Dr. Edward's hospital, was burned; on the same day Miss Coombs perished, being either stoned or burned. A number of the missionaries were welcomed into the home of the Rev. G. B. Farthing (B. M. S.) It was from this house that Dr. Wilson's last letter was written; it was dated July 6th. From four official sources come news of a general massacre at T'ai-yuen on July 9th, three days later; thirty-seven foreigners and thirty native Christians being killed. Nothing since has been heard of Dr. and Mrs. Wilson, and the fate of himself and his companions is unknown.

Dr. William Wilson, of Hsü-ting-fu, Si-ch'uan, four days north-west of Wan-hsien, on the Yang-tsze, received an urgent summons on August 6th, and determined to leave. August 7th both compounds were crowded with people; a request was sent to the officials to maintain order; this they did. August 8th started on journey with five ladies, two children, and one other worker. Ten chairs were required for the party, thirty soldiers formed an escort. Thirty chair bearers, twenty-eight coolies, thirty soldiers, and their own party, in all 100, started together. On the previous day a message

was sent to Wan-hsien for boats, so as to avoid going into the city; while passing through the villages a soldier was placed on each side of the chairs to avoid crowds; food was partaken of outside the villages instead of at the usual inns. 400 *li* by chair in four days brought them at dusk to the boats, whence they started at once for Ichang. Hankow was reached August 18th.

Dr. F. Judd was rioted on July 21st, at 10 p.m.; he and his party escaped to the Fu-ia-men, from whence at 12.30 he left by a small gunboat. Their house was pulled down and boxes, etc., destroyed. See note of his experience, written by himself.

Dr. F. A. Keller, Ch'a-ling-cheo, Hunan, was hidden by the mandarin for several nights; finally he escaped in a chair carried by soldiers in citizen's clothes; he had an escort of four soldiers, and a Chinese teacher accompanied him. Reached coast safely.

Dr. John A. Anderson, of T'ai-cheo, Chehkiang, left for the coast on August 2nd. He hoped to remain at his post, but the unsettled state of affairs on the Yang-tsze was affecting Chehkiang, and he decided to leave his station for a time. Previous to this Mr. Godson, of the C. M. S., had been taken prisoner by robbers; a body of Christians secured his release, however, but the whole country side was rapidly becoming unsafe. Mrs. Dr. Anderson, Miss E. M. S. Anderson, Miss Rudland, and Miss Albertson accompanied Dr. Anderson to the coast.

Dr. G. W. Guinness, Honan, was situated at Shae-k'i-tien, and had a narrow escape. He was staying with

Mr. and Mrs. Conway and Miss Watson (a fully trained nurse from Canada). Their premises were rioted and burned on July 9th. An escape was effected by crossing over a wall and climbing up into a loft belonging to the next door neighbour. For days hundreds of people were searching for them to take their lives, and the officials would do nothing to help. It seemed impossible to get away; the city gates were nearly all closed, and the whole country was given over to riot and disorder; murders being of daily occurrence. An attempt to escape in water butts was only frustrated by the fact that the butts were too small. Seventeen days were thus spent in hiding, lying on the floor; on many occasions it seemed that the last moment had come, but God prevented the enemy from getting at the little group of foreigners, and finally at dawn of day they got away by boat. The ladies and the month old child had to be disguised as far as possible on the journey from the house to the boat; discovery many times seemed imminent; on reaching the boat the strain was not wholly relieved, as for thirteen days they had still to hide, and passing the customs was very dangerous. Each time, passing more than one dozen customs, it was an anxious moment when the boat passed through. Frequently the examining officer came into the little cabin and saw the four travellers, disguised somewhat, but in no case did he discover they were foreigners. Hankow was reached thirty days after the riot, and not till the bund came in sight did we know Hankow was safe; the reports all the journey through having been that all foreigners had been compelled to fly. All instruments and drugs, with the exception of a case of B. and W. tabloids, were lost, and all other possessions, except a Bible.

Dr. Howard Taylor's things—books, drugs, and instruments—were destroyed in the Cheo-kia-k'eo riot; he himself being in England on furlough.

Dr. Pruett, of Si-ch'uan, has reached the coast in safety.

Dr. Cox and Dr. Williams, of Chin-kiang, are still there carrying on their hospital work.

Dr. King, of Chefoo, has not left his station, as things there are quiet.

Dr. Hewitt, of Ü-u, Shansi, has not been heard of. Gravest fears are entertained regarding his safety.

Dr. Parry, of Kia-ting-fu, Si-ch'uan, has come down to Hankow; is now engaged in caring for the sick refugees at that city.

THE RIOT AT IAO-CHOW-FU.

The C. I. M. station at Iao-cheo-fu only having been opened a year or so there was no hospital, but dispensary work has been carried on by Dr. Judd, and patients were weekly increasing.

For a week or ten days previous to July 21st rumours were becoming many and rather severe against the Roman Catholics. Soldiers were sent to guard their premises; proclamations exhorting the people not to heed or pass on rumours, were put out; and the foreign priests and sisters, all but the one in charge, left for Kiukiang. As far as could be ascertained there was nothing said against the Protestant mission, but in view of the Empress' edict, the district magistrate, who was very friendly, very much wished us to go, too.

On Saturday afternoon, July 21st, an attack was made on the Roman Catholic premises and their extensive buildings burned to the ground; the priests (two having come in from the Kuang-sin prefecture) escaping with difficulty, the senior getting cut and bruised about the head and shoulders.

Having been stirred up in performing this work of destruction they proceeded to destroy the houses and property of many of the Roman Catholic adherents and threatened to do the same to the premises of the C. I. M.

These had been trying to secure a boat for refuge if they should be attacked, but before the boat was secured the rioters were at their front gate, firing it with torches. This was about 10 p.m. Dr Judd, his wife, and brother, two other gentlemen and two natives immediately left by the back gate, and through quiet lanes reached the *Fu yamên* without difficulty.

The officials secured a small native gunboat with ten men and the captain's one wee cabin; the refugees went on board about 12.30, and the boat was moved off at once; that night getting several miles away from the city. Kiu-kiang was reached on Tuesday and Shanghai the following Saturday without more adventures. And they are remaining there until the country is quiet enough to allow of work being resumed inland again.

It was afterwards ascertained that, on the neighbours' pleading, the house was not burned, but pulled to pieces; the foundations even not allowed to remain. Boxes were taken outside and burned, and some tinned meat and condensed milk found among the stores, were the undeniable evidence of the work that Dr. Judd had been carrying on. The fertile imaginations of the natives enabling them to recognize in the tinned meat some of their delicate children, and in the milk, brains.

All drugs, including a new order just out from England, medical appliances and books, were lost, with the exception of some *illustrated* books and instruments which were packed in a small box and sent to the *yamên* a few days previously.





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